CDX-S22/S22S

SERVICE MANUAL

Ver. 1.0 2005. 11

AEP Model
UK Model
CDX-S22
E Model
CDX-S22/S22S
Chinese Model
CDX-S22S

Photo: CDX-S22S

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	CDX-GT300/GT350S
CD Drive Mechanism Type	MG-611WA-186//Q
Optical Pick-up Name	KSS1000E

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 108.0 MHz (AEP, UK, EA model) 87.5 – 108.0 MHz (at 50 kHz step) (E, MX, CH model) 87.5 – 107.9 MHz (at 200 kHz step) (E, MX, CH model)
FM tuning interval	50 kHz/200 kHz switchable (E, MX, CH model)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW (AEP, UK model)

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV, LW: 40 µV

AM (E, MX, CH, EA model)

Tuning range	531 – 1,602 kHz (EA model) 531 – 1,602 kHz (at 9 kHz step) (E, MX, CH model) 530 – 1,710 kHz (at 10 kHz step) (E, MX, CH model)
AM tuning interval	9 kHz/10 kHz switchable (E, MX, CH model)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

– Continued on next page –

FM/AM COMPACT DISC PLAYER
CDX-S22: E, MX/S22S
FM/MW/LW COMPACT DISC PLAYER
CDX-S22: AEP, UK

9-879-956-01
2005K04-1
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Sony Corporation
eVehicle Division
Published by Sony Engineering Corporation

SONY®

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	
	52 W × 4 (at 4 ohms) (S22)
	45 W × 4 (at 4 ohms) (S22S)

General

Outputs	Audio outputs terminal (sub/rear switchable)
	Power aerial relay control terminal
	Power amplifier control terminal
Inputs	Telephone ATT control terminal (AEP, UK model)
	Aerial input terminal
Tone controls	Low: ±10 dB at 60 Hz (XPLOD)
	Mid: ±10 dB at 1 kHz (XPLOD)
	High: ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative earth)
Dimensions	Approx. 178 × 50 × 178 mm
Mounting dimensions	Approx. 182 × 53 × 161 mm
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set)

US and foreign patents licensed from Dolby Laboratories.

MPEG Layer-3 audio coding technology and
patents licensed from Fraunhofer IIS and Thomson.

Design and specifications are subject to change without notice.

- Abbreviation
  EA : Saudi Arabia model
  MX : Mexican model
  CH : Chinese model

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

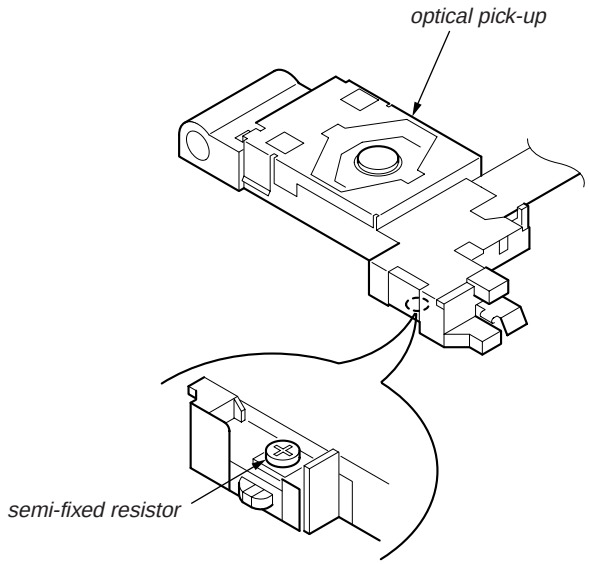
TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



EXCEPT CH model

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

CH model

1类激光产品

此标签位于机壳的底部。

• CD Playback:
You can play CD-DA (also containing CD TEXT*[1]), CD-R/CD-RW (MP3 files also containing Multi Session and ATRAC CD (ATRAC3 and ATRAC3plus format).

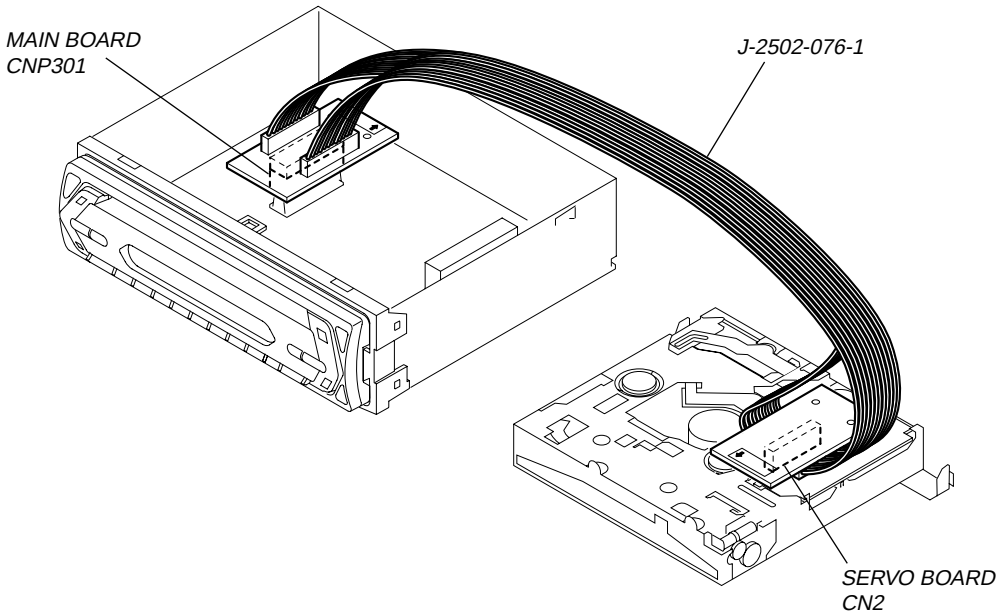
Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 ATRAC CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

*1 A CD TEXT disc is a CD-DA that includes information such as disc, artist and track name.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CNP301) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350°C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

• Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

• Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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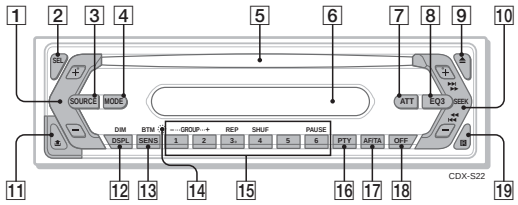
SECTION 1
GENERAL

Location of controls and basic operations (AEP, UK model)

Location of controls and basic operations

Main unit



Refer to the pages listed for details.

1 **Volume +/– button**
To adjust volume.

2 **SEL (select) button** 4, 9
To select items.

3 **SOURCE button**
To power on; change the source (Radio/CD).

4 **MODE button** 6
To select the radio band (FM/MW/LW).

5 **Disc slot**
Insert the disc (label side up), playback starts.

6 **Display window**

7 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

8 **EQ3 (equalizer) button** 9
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).

9 **⏏ (eject) button**
To eject the disc.

10 **SEEK +/– button**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

11 **⏏ (front panel release) button** 4

12 **DSPL (display)/DIM (dimmer) button** 4, 6, 7
To change display items (press); change the display brightness (press and hold).

13 **SENS/BTM button** 6
To improve weak reception: LOCAL/MONO (press); start the BTM function (press and hold).

14 **RESET button** (located behind the front panel) 4

15 **Number buttons**
CD:
①/②: **GROUP*** –/+
To skip groups (press); skip groups continuously (press and hold).
③: **REP** 6
④: **SHUF** 6
⑥: **PAUSE**
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **PTY (Programme Type) button** 8
To select PTY in RDS.

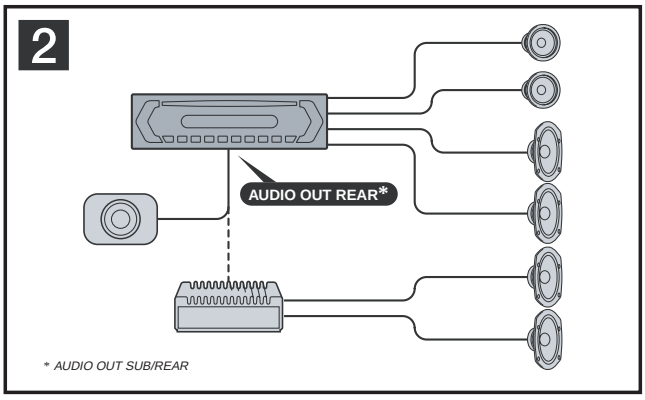
17 **AF (Alternative Frequencies)/TA (Traffic Announcement) button** 7
To set AF and TA/TP in RDS.

18 **OFF button**
To power off; stop the source.

19 **Receptor for the card remote commander** 10

** When an MP3/ATRAC CD is played.*

Connections (AEP, UK model)



Connection example 2

Notes
- *Be sure to connect the earth lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

Anschlussbeispiel 2

Hinweise
- *Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.*
- *Der Alarm ist nur zu hören, wenn der integrierte Verstärker verwendet wird.*

Exemple de raccordement 2

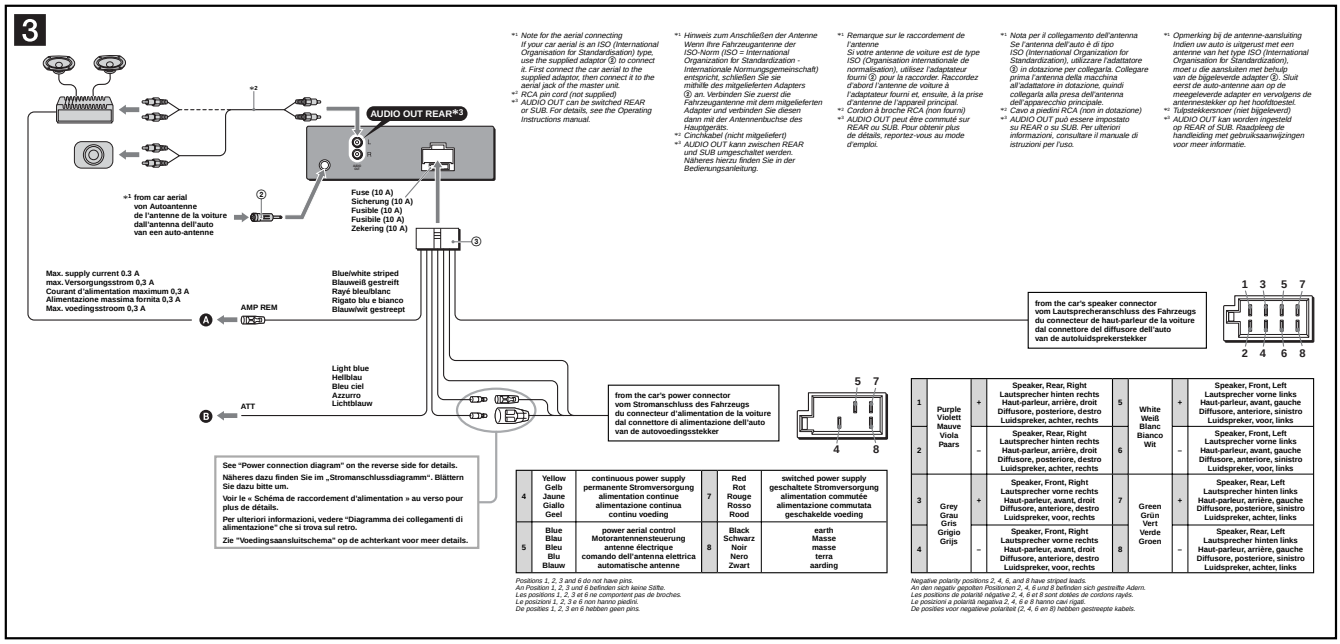
Remarques
- *Raccordez d'abord le câble de mise à la masse avant de connecter l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

Esempio di collegamento 2

Note
- *Assicurarsi di collegare il cavo di terra prima di collegare l'apparecchio all'amplificatore.*
- *Il segnale viene emesso solo se si utilizza l'amplificatore incorporato.*

Voorbeeldaansluitingen 2

Opmerkingen
- *Sluit eerst de aarddraad aan voordat u de versterker aansluit.*
- *U hoort de waarschuwingstoon alleen als de ingebouwde versterker wordt gebruikt.*


3
AUDIO OUT REAR*3
*2
*1 from car aerial
von Autoantenne
de l'antenne de la voiture
dall'antenna dell'auto
van een auto-antenne
Fuse (10 A)
Sicherung (10 A)
Fusible (10 A)
Fusibile (10 A)
Zekering (10 A)
Max. supply current 0,3 A
max. Versorgungsstrom 0,3 A
Courant d'alimentation maximum 0,3 A
Alimentazione massima fornita 0,3 A
Max. voedingsstroom 0,3 A
Blue/white striped
Blauweiß gestreift
Rayé bleu/blanc
Rigato blu e bianco
Blauw/wit gestreept
AMP REM
Light blue
Hellblau
Bleu ciel
Azzurro
Lichtblauw
ATT
from the car's power connector
vom Stromanschluss des Fahrzeugs
du connecteur d'alimentation de la voiture
dal connettore di alimentazione dell'auto
van de autovoedingsstekker
from the car's speaker connector
vom Lautsprecheranschluss des Fahrzeugs
du connecteur de haut-parleur de la voiture
dal connettore dei diffusore dell'auto
van de autoluidsprekerstekker
See "Power connection diagram" on the reverse side for details.
Näheres dazu finden Sie im „Stromanschlussdiagramm". Blättern Sie dazu bitte um.
Voir le « Schéma de raccordement d'alimentation » au verso pour plus de détails.
Per ulteriori informazioni, vedere "Diagramma dei collegamenti di alimentazione" che si trova sul retro.
Zie "Voedingsaansluitschema" op de achterkant voor meer details.

*1 Note for the aerial connecting
If your car aerial is an ISO (International Organisation for Standardisation) type, use the supplied adaptor ③ to connect it. First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
*2 RCA pin cord (not supplied)
*3 AUDIO OUT can be switched REAR or SUB. For details, see the Operating Instructions manual.

*1 Hinweis zum Anschließen der Antenne
Wenn Ihre Fahrzeugantenne der ISO-Norm (ISO = International Organization for Standardization - Internationale Normungsgemeinschaft) entspricht, schließen Sie sie mithilfe des mitgelieferten Adapters ③ an. Verbinden Sie zuerst die Fahrzeugantenne mit dem mitgelieferten Adapter und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
*2 Cinchkabel (nicht mitgeliefert)
*3 AUDIO OUT kann zwischen REAR und SUB umgeschaltet werden. Näheres hierzu finden Sie in der Bedienungsanleitung.

*1 Remarque sur le raccordement de l'antenne
Si votre antenne de voiture est de type ISO (Organisation internationale de normalisation), utilisez l'adaptateur fourni ③ pour la raccorder. Raccordez d'abord l'antenne de voiture à l'adaptateur fourni et, ensuite, à la prise d'antenne de l'appareil principal.
*2 Cordon à broche RCA (non fourni)
*3 AUDIO OUT peut être commuté sur REAR ou SUB. Pour obtenir plus de détails, reportez-vous au mode d'emploi.

*1 Nota per il collegamento dell'antenna
Se l'antenna dell'auto è di tipo ISO (International Organization for Standardization), utilizzare l'adattatore ③ in dotazione per collegarla. Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
*2 Cavo a piedini RCA (non in dotazione)
*3 AUDIO OUT può essere impostato su REAR o su SUB. Per ulteriori informazioni, consultare il manuale di istruzioni per l'uso.

*1 Opmerking bij de antenne-aansluiting
Indien uw auto is uitgerust met een antenne van het type ISO (International Organisation for Standardization), moet u die aansluiten met behulp van de bijgeleverde adapter ③. Sluit eerst de auto-antenne aan op de meegeleverde adapter en vervolgens de antenniestekker op het hoofdtoestel.
*2 Tulpstekkersnoer (niet bijgeleverd)
*3 AUDIO OUT kan worden ingesteld op REAR of SUB. Raadpleeg de handleiding met gebruiksaanwijzingen voor meer informatie.

4	Yellow Gelb Jaune Giallo Geel	continuous power supply permanente Stromversorgung alimentation continue alimentazione continua continu voeding	7	Red Rot Rouge Rosso Rood	switched power supply geschaltete Stromversorgung alimentation commutée alimentazione commutata geschakelde voeding
5	Blue Blau Bleu Blu Blauw	power aerial control Motorantennensteuerung antenne électrique comando dell'antenna elettrica automatische antenne	8	Black Schwarz Noir Nero Zwart	earth Masse masse terra aarding

Positions 1, 2, 3 and 6 do not have pins.
An Position 1, 2, 3 und 6 befinden sich keine Stifte.
Les positions 1, 2, 3 et 6 ne comportent pas de broches.
Le posizioni 1, 2, 3 e 6 non hanno piedini.
De pesities 1, 2, 3 en 6 hebben geen pins.

1	Purple Violett Mauve Viola Paars	+	Speaker, Rear, Right Lautsprecher hinten rechts Haut-parleur, arrière, droit Diffusore, posteriore, destro Luidspreker, achter, rechts	5	White Weiß Blanc Bianco Wit	+	Speaker, Front, Left Lautsprecher vorne links Haut-parleur, avant, gauche Diffusore, anteriore, sinistro Luidspreker, voor, links
2		–	Speaker, Rear, Right Lautsprecher hinten rechts Haut-parleur, arrière, droit Diffusore, posteriore, destro Luidspreker, achter, rechts	6		–	Speaker, Front, Left Lautsprecher vorne links Haut-parleur, avant, gauche Diffusore, anteriore, sinistro Luidspreker, voor, links
3	Grey Grau Gris Grigio Grijs	+	Speaker, Front, Right Lautsprecher vorne rechts Haut-parleur, avant, droit Diffusore, anteriore, destro Luidspreker, voor, rechts	7	Green Grün Vert Verde Groen	+	Speaker, Rear, Left Lautsprecher hinten links Haut-parleur, arrière, gauche Diffusore, posteriore, sinistro Luidspreker, achter, links
4		–	Speaker, Front, Right Lautsprecher vorne rechts Haut-parleur, avant, droit Diffusore, anteriore, destro Luidspreker, voor, rechts	8		–	Speaker, Rear, Left Lautsprecher hinten links Haut-parleur, arrière, gauche Diffusore, posteriore, sinistro Luidspreker, achter, links

Negative polarity positions 2, 4, 6, and 8 have striped leads.
An den negativ gepolten Positionen 2, 4, 6 und 8 befinden sich gestreifte Adern.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
Le posizioni a polarità negativa 2, 4, 6 e 8 hanno cavi rigati.
De posities voor negatieve polariteit (2, 4, 6 en 8) hebben gestreepte kabels.

Connection diagram 3

A To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

B To the interface cable of a car telephone

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting lead ③ may damage the aerial.

Notes on the control power and suppy leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner, or when you activate the AF (Alternative Frequency) or TA (Traffic Announcement) function.*
- *When your car has built-in FM/MW/LW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Anschlussdiagramm 3

A An AMP REMOTE IN des gesondert erhältlichen Endverstärkers
Dieser Anschluss ist ausschließlich für Verstärker gedacht. Schließen Sie nichts anderes daran an. Andernfalls kann das Gerät beschädigt werden.

B An Schnittstellenkabel eines Autotelefons

Warnung

Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit dem mitgelieferten Stromversorgungskabel ③ die Antenne beschädigt werden.

Steuer- und Stromversorgungsleitungen
- *Die Motorantennen-Steuerleitung (blau) liefert +12 V Gleichstrom, wenn Sie den Tuner einschalten oder die AF- (Alternativfrequenzsuche) oder die TA-Funktion (Verkehrsdurchsagen) aktivieren.*
- *Wenn das Fahrzeug mit einer in der Heck-/Seitenfensterscheibe integrierten FM (UKW)/MW/LW-Antenne ausgestattet ist, schließen Sie die Motorantennen-Steuerleitung (blau) oder die Zubehörstromversorgungsleitung (rot) an den Stromversorgungsanschluss des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.*
- *Es kann nur eine Motorantenne mit Relaiskästchen angeschlossen werden.*

Stromversorgung des Speichers
Wenn die gelbe Stromversorgungsleitung angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

Hinweise zum Lautsprecheranschluss
- *Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.*
- *Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.*
- *Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.*
- *Verbinden Sie die Masseleitung dieses Geräts nicht mit dem negativen (–) Lautsprecheranschluss.*
- *Versuchen Sie nicht, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da das Gerät sonst beschädigt werden könnte.*
- *Um Fehlfunktionen zu vermeiden, verwenden Sie nicht die im Fahrzeug installierten, integrierten Lautsprecherleitungen, wenn am Ende eine gemeinsame negative (–) Leitung für den rechten und den linken Lautsprecher verwendet wird.*
- *Verbinden Sie nicht die Lautsprecherkabel des Geräts miteinander.*

Hinweis zum Anschließen
Wenn Lautsprecher und Verstärker nicht richtig angeschlossen sind, erscheint „FAILURE" im Display. Vergewissern Sie sich in diesem Fall, dass Lautsprecher und Verstärker richtig angeschlossen sind.

Schémas de raccordement 3

A Au niveau du AMP REMOTE IN d'un amplificateur de puissance facultatif
Ce raccordement existe seulement pour les amplificateurs. Le raccordement à tout autre système peut endommager l'appareil.

B Vers le cordon de liaison d'un téléphone de voiture

Avertissement

Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni ③ risque d'endommager l'antenne.

Remarques sur les câbles de commande et de puissance
- *Le câble de commande (bleu) fournit du courant continu de +12 V lorsque vous mettez le tuner sous tension ou lorsque vous activez la fonction AF (fréquence alternative) ou TA (informations circulation).*
- *Lorsque votre voiture est équipée d'une antenne FM/MW (GO)/LW (PO) intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) au bornier de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble de commande d'antenne jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est en position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas raccorder le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Connectez uniquement des haut-parleurs passifs. La connexion de haut-parleurs actifs (avec des amplificateurs intégrés) aux bornes des haut-parleurs pourrait endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil dispose d'un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les enceintes et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les enceintes et l'amplificateur sont raccordés correctement.

Schema di collegamento 3

A A AMP REMOTE IN di un amplificatore di potenza opzionale
Questo collegamento è riservato esclusivamente agli amplificatori. Non collegare un tipo di sistema diverso onde evitare di causare danni all'apparecchio.

B Al cavo interfaccia di un telefono per auto

Avvertenza

Quando si collega l'apparecchio con il cavo di alimentazione in dotazione ③, si potrebbe danneggiare l'antenna elettrica se questa non dispone di scatola a relè.

Note sui cavi di controllo e di alimentazione
- *Il cavo (blu) di controllo dell'antenna elettrica fornisce alimentazione pari a +12 V CC quando si attiva il sintonizzatore oppure la funzione TA (notiziario sul traffico) o AF (frequenza alternativa).*
- *Se l'automobile è dotata di antenna FM/MW/LW incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione accessoria al terminale di alimentazione del preamplificatore dell'antenna esistente. Per ulteriori informazioni, consultare il proprio fornitore.*
- *Non è possibile usare un'antenna elettrica senza scatola a relè con questo apparecchio.*

Collegamento per la conservazione della memoria
Quando il cavo di ingresso alimentazione giallo è collegato, viene sempre fornita alimentazione al circuito di memoria anche quando l'interruttore di accensione è spento.

Note sul collegamento dei diffusori
- *Prima di collegare i diffusori spegnere l'apparecchio.*
- *Usare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori potrebbero venir danneggiati.*
- *Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.*
- *Non collegare il cavo di terra di questo apparecchio al terminale negativo (–) del diffusore.*
- *Non collegare i diffusori in parallelo.*
- *Assicurarsi di collegare soltanto diffusori passivi, poiché il collegamento di diffusori attivi, dotati di amplificatori incorporati, ai terminali dei diffusori potrebbe danneggiare l'apparecchio.*
- *Per evitare problemi di funzionamento, non utilizzare i cavi dei diffusori incorporati installati nell'automobile se l'apparecchio condivide un cavo comune negativo (–) per i diffusori destro e sinistro.*
- *Non collegare fra loro i cavi dei diffusori dell'apparecchio.*

Nota sui collegamenti
Se l'amplificatore e il diffusore non sono collegati correttamente, "FAILURE" viene visualizzato nel display. In tal caso, accertarsi che l'amplificatore e il diffusore siano collegati correttamente.

Aansluitschema 3

A Naar AMP REMOTE IN van een optionele eindversterker
Deze aansluiting is alleen bedoeld voor versterkers. Door een ander systeem aan te sluiten kan het apparaat worden beschadigd.

B Naar het interface-snoer van een autotelefoon

Waarschuwing

Indien u een elektrische antenne heeft zonder relaiskast, kan het aansluiten van deze eenheid met het bijgeleverde netsnoer ③ de antenne beschadigen.

Opmerkingen over de bedienings- en voedingskabels
- *De antennevoedingskabel (blauw) levert +12 V gelijkstroom wanneer u de tuner inschakelt of de AF (Alternative Frequency) of TA (Traffic Announcement) functie activeert.*
- *Wanneer uw auto is uitgerust met een FM/MW/LW-antenne in de achterruit/voorruit, moet u de antennevoedingskabel (blauw) of de hulpvoedingskabel (rood) aansluiten op de voedingsingang van de bestaande antennenversterker. Raadpleeg uw dealer voor meer details.*
- *Met dit apparaat is het niet mogelijk een automatische antenne zonder relaiskast te gebruiken.*

Instandhouden van het geheugen
Zolang de gele stroomdraad is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer het contact van de auto wordt uitgeschakeld.

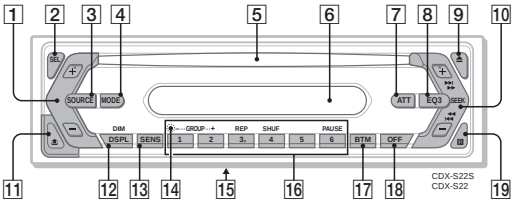
Opmerkingen betreffende het aansluiten van de luidsprekers
- *Zorg dat het apparaat is uitgeschakeld, alvorens de luidsprekers aan te sluiten.*
- *Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.*
- *Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter- en linkerluidspreker niet op elkaar aan.*
- *Verbind de aarddraad van dit apparaat niet met de negatieve (–) aansluiting van de luidspreker.*
- *Probeer nooit de luidsprekers parallel aan te sluiten.*
- *Sluit geen actieve luidsprekers (met ingebouwde versterkers) aan op de luidspreker-aansluiting van dit apparaat. Dit zal leiden tot beschadiging van de actieve luidsprekers. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.*
- *Om defecten te vermijden mag u de bestaande luidsprekerbedrading in uw auto niet gebruiken wanneer er een gemeenschappelijke negatieve (–) draad is voor de rechter- en linkerluidsprekers.*
- *Verbind de luidsprekerdraden niet met elkaar.*

Opmerking over aansluiten
Als de luidspreker en versterker niet correct zijn aangesloten, wordt "FAILURE" in het display weergegeven. In dit geval moet u zorgen dat de luidspreker en versterker correct zijn aangesloten.

Location of controls and basic operations (E, MX, CH, EA model)

Location of controls and basic operations

Main unit



Refer to the pages listed for details.

1 **Volume +/– button**
To adjust volume.

2 **SEL (select) button** 4, 7
To select items.

3 **SOURCE button**
To power on; change the source (Radio/CD).

4 **MODE button** 6
To select the radio band (FM/AM).

5 **Disc slot**
Insert the disc (label side up), playback starts.

6 **Display window**

7 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

8 **EQ3 (equalizer) button** 7
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).

9 **⏏ (eject) button**
To eject the disc.

10 **SEEK +/– button**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

11 **(front panel release) button** 4

12 **DSPL (display)/DIM (dimmer) button** 4, 6
To change display items (press); change the display brightness (press and hold).

13 **SENS button**
To improve weak reception: LOCAL/MONO.

14 **RESET button** (located behind the front panel) 4

15 **Frequency select switch** (located on the bottom of the unit)
See "Frequency select switch" in the supplied installation/connections manual.

16 **Number buttons**
CD:
①/②: **GROUP*** –/+
To skip groups (press); skip groups continuously (press and hold).
③: **REP** 6
④: **SHUF** 6
⑥: **PAUSE**
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

17 **BTM button** 6
To start the BTM function (press and hold).

18 **OFF button**
To power off; stop the source.

19 **Receptor for the card remote commander** 8

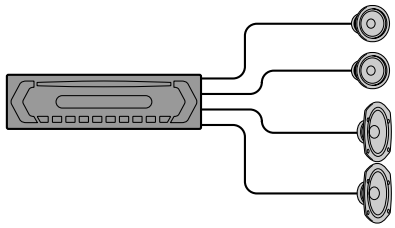
** When an MP3/ATRAC CD is played.*

5

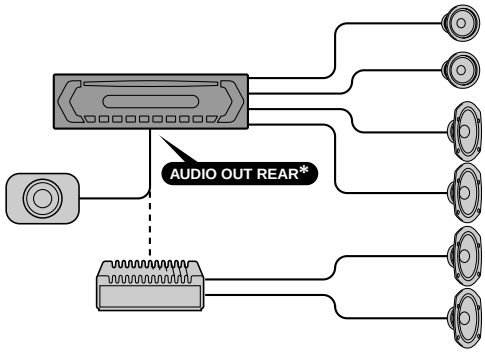
Connections (E, MX, CH, EA model)

2

A



B



** AUDIO OUT SUB/REAR*

Connection example 2

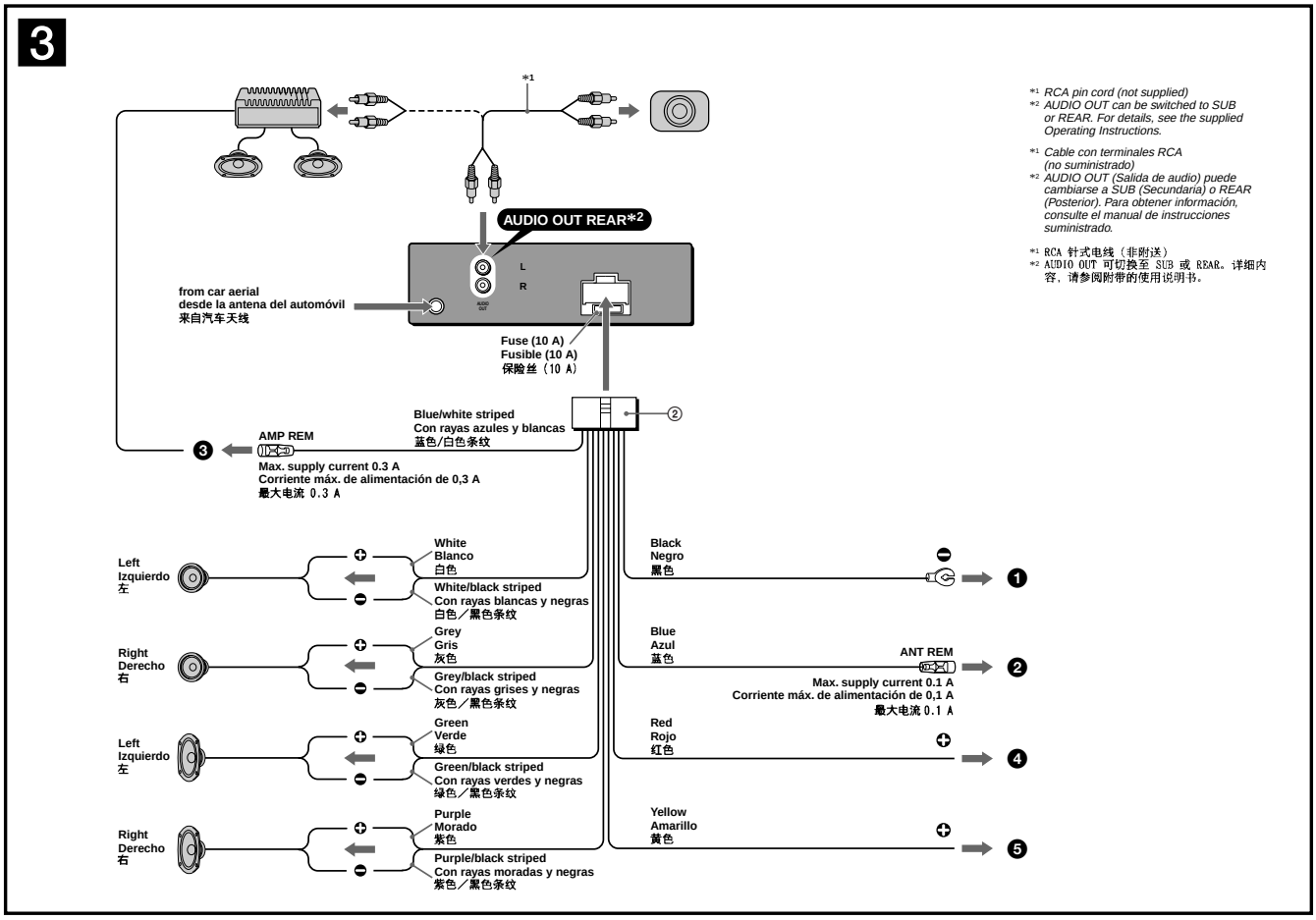
***Notes* (2-B)**
- *Be sure to connect the earth lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

Ejemplo de conexiones 2

***Notas* (2-B)**
- *Asegúrese de conectar primero el cable de conexión a masa antes de realizar la conexión al amplificador.*
- *Los pitidos se activarán únicamente si se utiliza el amplificador integrado.*

线路连接图例 2

注 (2-B)
- 务必在连接放大器之前连接接地线。
- 只有在使用内置的放大器时，警报才会发出声响。



*1 *RCA pin cord (not supplied)*
*2 *AUDIO OUT can be switched to SUB or REAR. For details, see the supplied Operating Instructions.*

*1 *Cable con terminales RCA (no suministrado)*
*2 *AUDIO OUT (Salida de audio) puede cambiarse a SUB (Secundaria) o REAR (Posterior). Para obtener información, consulte el manual de instrucciones suministrado.*

*1 RCA 针式电线（非附送）
*2 AUDIO OUT 可切换至 SUB 或 REAR。详细内容，请参阅附带的使用说明书。

Connection diagram 3

❶ **To a metal surface of the car**
First connect the black earth lead, then connect the yellow and red power input leads.

❷ **To the power aerial control lead or power supply lead of aerial booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power aerial or aerial booster, or with a manually-operated telescopic aerial.*
- *When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black earth lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."*

❺ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black earth lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Diagrama de conexión 3

❶ **A una superficie metálica del automóvil**
Conecte primero el cable de conexión a masa negro, y después los cables amarillo y rojo de entrada de alimentación.

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de señal de la antena**
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **A AMP REMOTE IN de un amplificador de potencia opcional**
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

❹ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❺ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de +12V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su distribuidor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague la llave de encendido.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de conexión a masa de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallas de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "FAILURE" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

线路连接图 3

❶ **至汽车金属表面**
首先连接黑色接地导线，然后连接黄色和红色电源输入导线。

❷ **至电动天线控制导线或天线升缩放大器的电源导线**
注
- 如果没有电动天线或天线升缩器，或有手动伸缩式天线，则无需连接此导线。
- 若汽车的后/侧玻璃内有内置 FM/AM 天线，请参阅“关于控制导线和电源导线的注意事项”。

❸ **至选购的功率放大器的 AMP REMOTE IN**
此连接仅适用于功率放大器。连接其它系统可能损坏本机。

❹ **至 +12 V 电源端子，该端子在点火开关附件位置通电**
注
- 如果没有附件位置，则连接至 +12 V 电源（蓄电池）端子，该端子随时处于通电状态。
  确保首先将黑色接地导线连接至汽车金属表面。
- 若汽车的后/侧玻璃内有内置 FM/AM 天线，请参阅“关于控制导线和电源导线的注意事项”。

❺ **至 +12 V 电源端子，该端子随时处于通电状态**
确保首先将黑色接地导线连接至汽车金属表面。

关于控制导线和电源导线的注意事项
- 接通调谐器电源时，电动天线的控制导线（蓝色）便能提供 +12 V 直流电。
- 当汽车的后/侧玻璃窗上有内置 FM/AM 天线时，请将电动天线控制线（蓝色）或辅助电源输入电线（红色）连接至现有天线升缩器上的电源端子上。详细说明，请与您的经销商联系。
- 本机不能使用不具备继电器盒的电动天线。

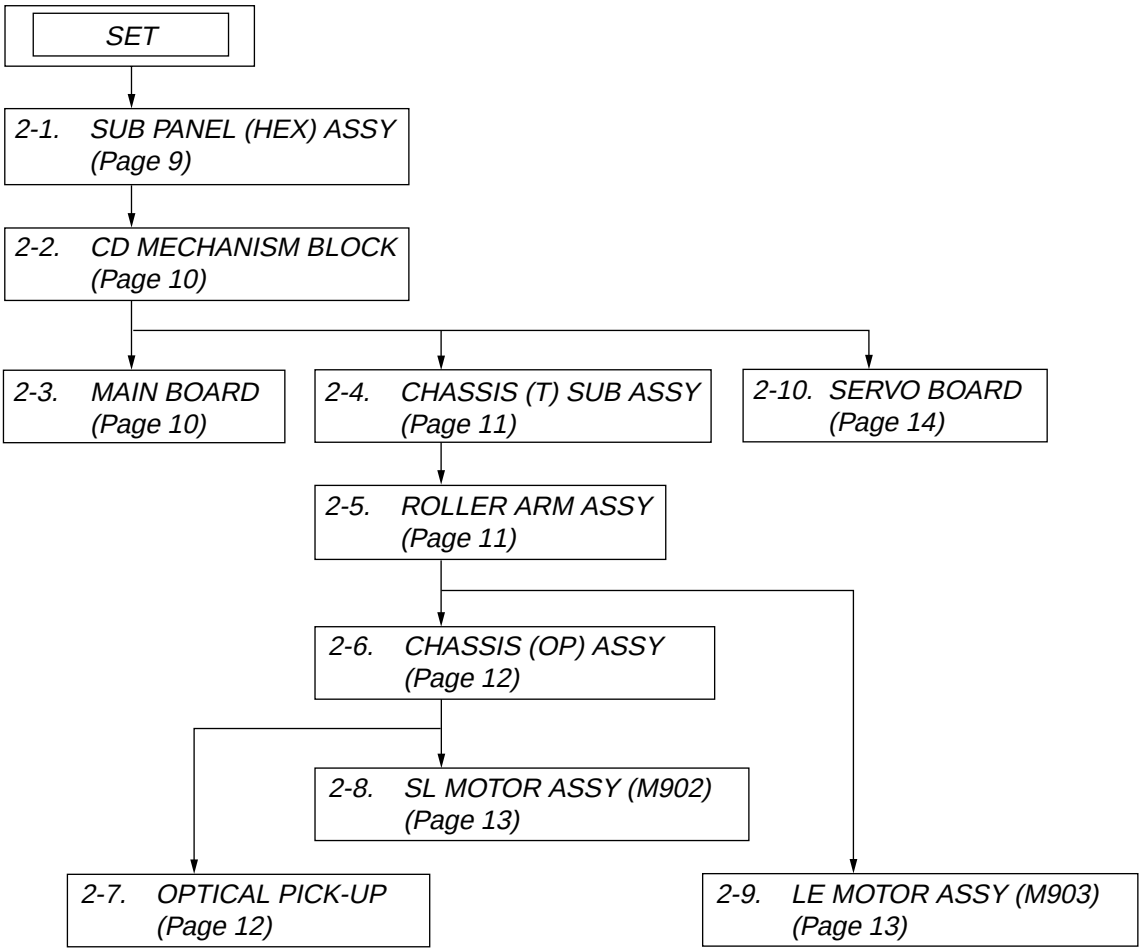
保持记忆的线路连接法
当连接了黄色的电源输入电线时，即使点火开关关闭，电源仍将对记忆电路供电。

关于扬声器连接的注意事项
- 连接扬声器之前，请关闭本机电源。
- 请使用阻抗为 4–8 欧姆且具有足够功率处理能力的扬声器，以免损坏。
- 勿将扬声器端子连接到汽车底盘上，或将右扬声器的端子与左扬声器的端子连接。
- 勿将本机的接地线连接到扬声器的负极（–）端子上。
- 扬声器不可并联连接。
- 请仅连接无源扬声器。将有源扬声器（具有内置放大器）连接到扬声器端子可能会损坏本机。
- 若本机使用左、右扬声器的共用负极（–）电线，为了避免故障，切勿使用安装在汽车内的内置扬声器电线。
- 请勿将本机扬声器电线相互连接。

连接的注意事项
如果未正确连接扬声器和放大器，则显示屏上会出现“FAILURE”。这时，请确保扬声器和放大器连接正确。

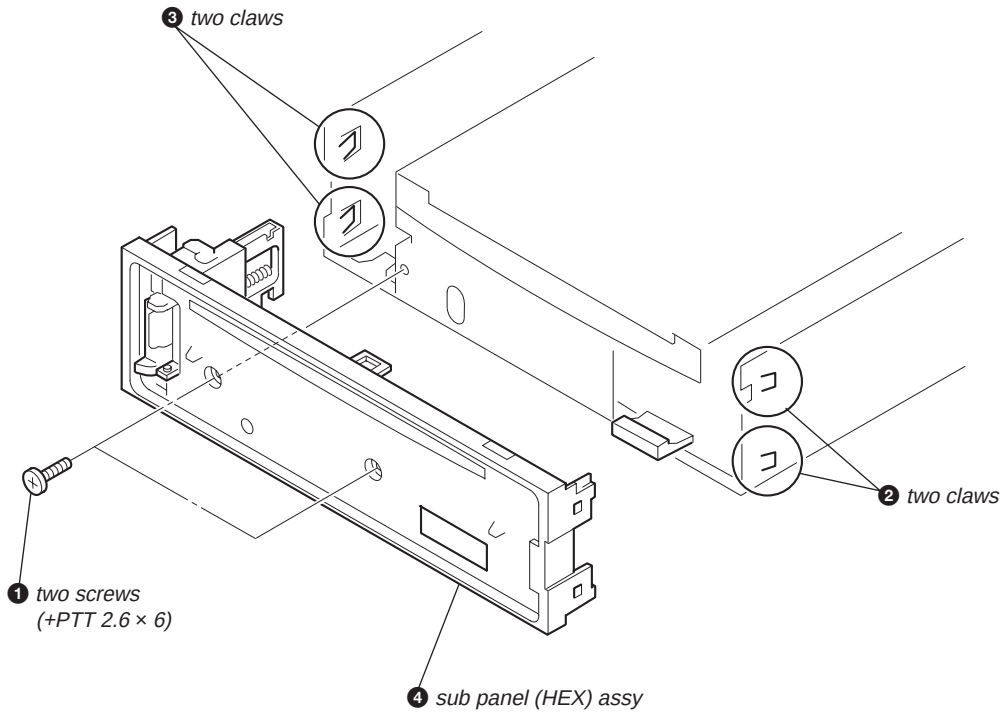
SECTION 2
DISASSEMBLY

Note: This set can be disassemble according to the following sequence.

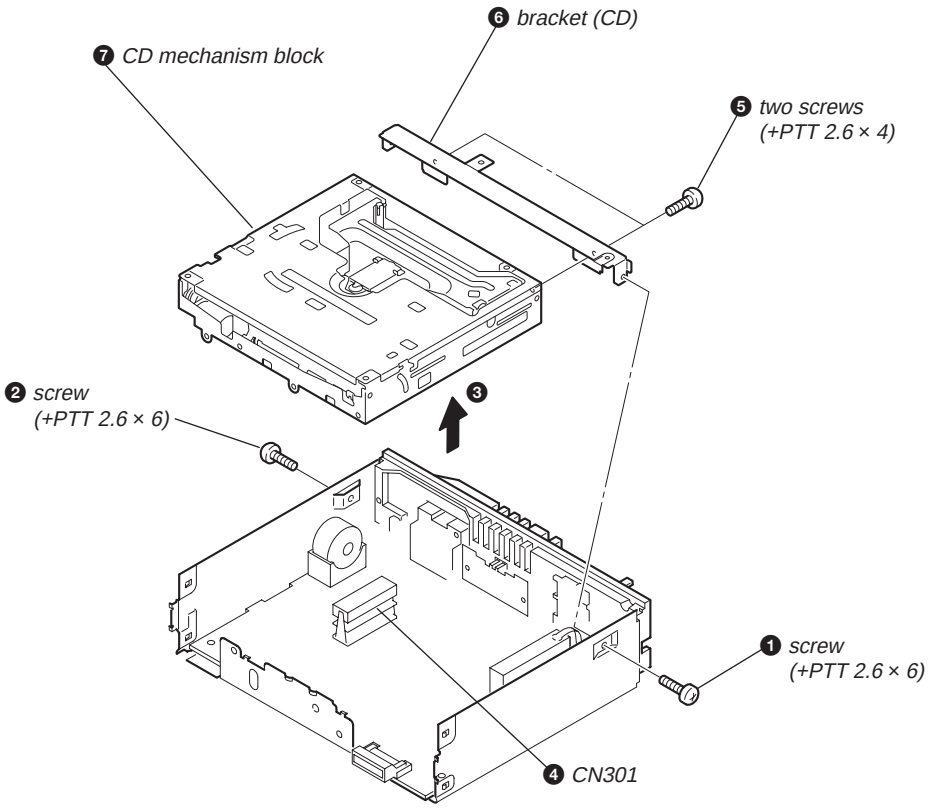

SET
2-1. SUB PANEL (HEX) ASSY (Page 9)
2-2. CD MECHANISM BLOCK (Page 10)
2-3. MAIN BOARD (Page 10)
2-4. CHASSIS (T) SUB ASSY (Page 11)
2-10. SERVO BOARD (Page 14)
2-5. ROLLER ARM ASSY (Page 11)
2-6. CHASSIS (OP) ASSY (Page 12)
2-8. SL MOTOR ASSY (M902) (Page 13)
2-7. OPTICAL PICK-UP (Page 12)
2-9. LE MOTOR ASSY (M903) (Page 13)

Note: Follow the disassembly procedure in the numerical order given.

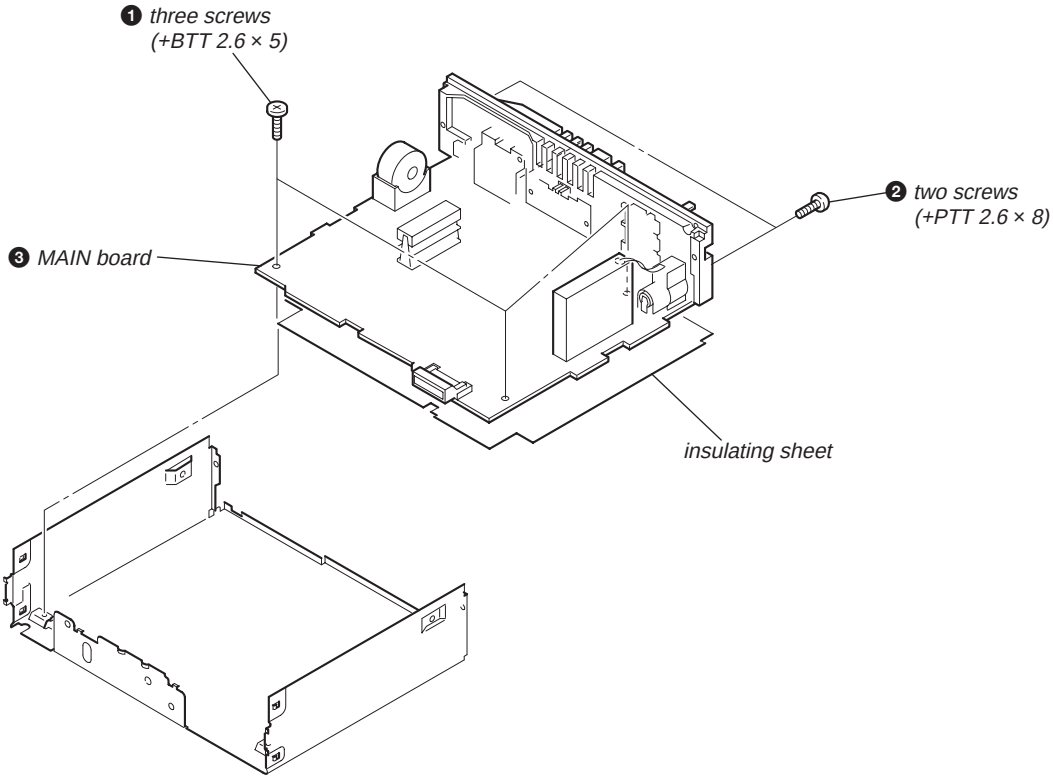
2-1. SUB PANEL (HEX) ASSY



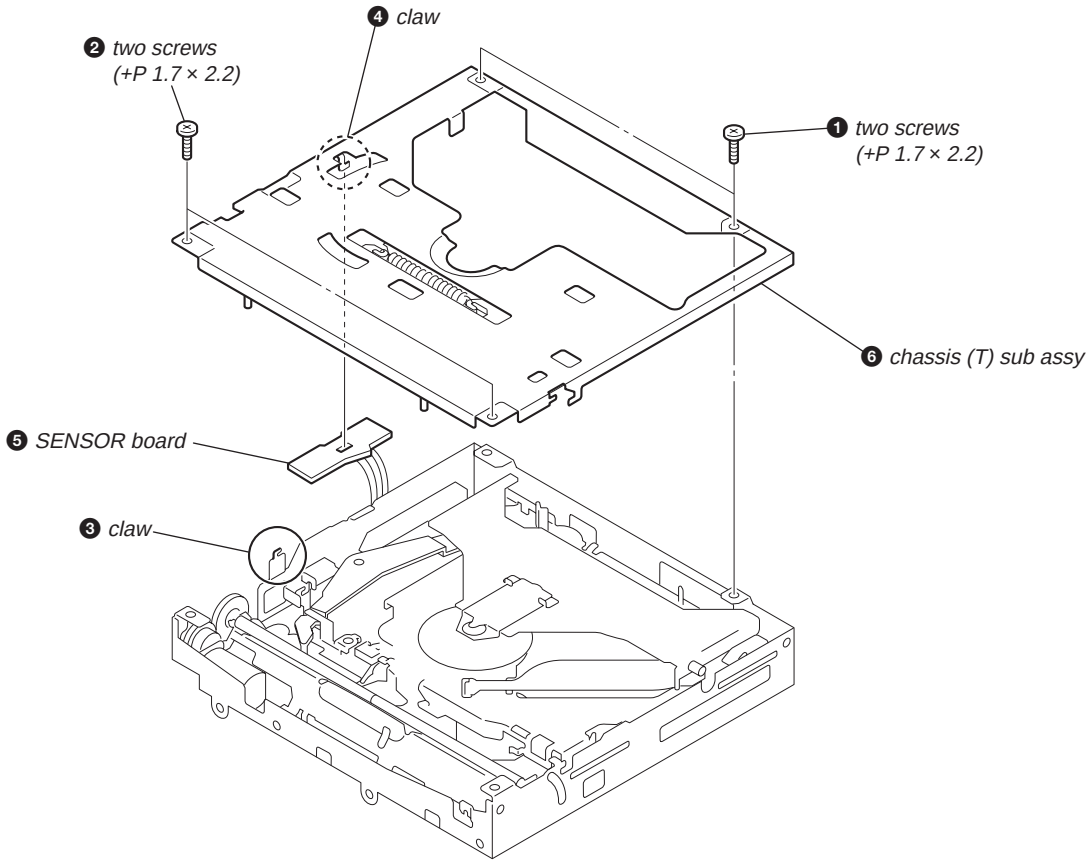
2-2. CD MECHANISM BLOCK



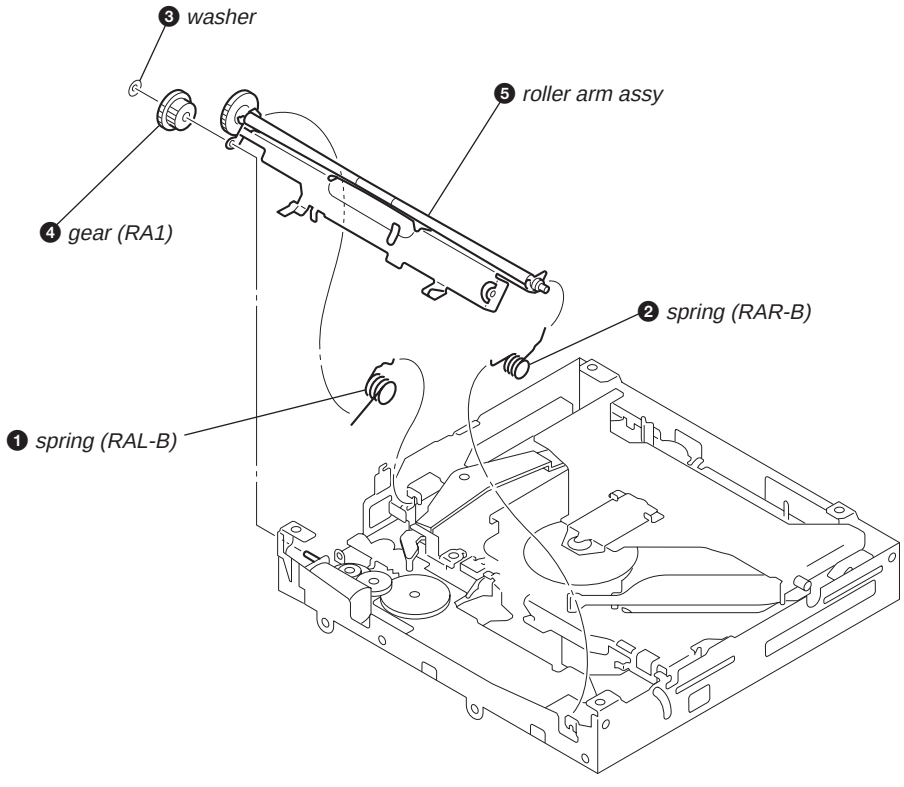
2-3. MAIN BOARD



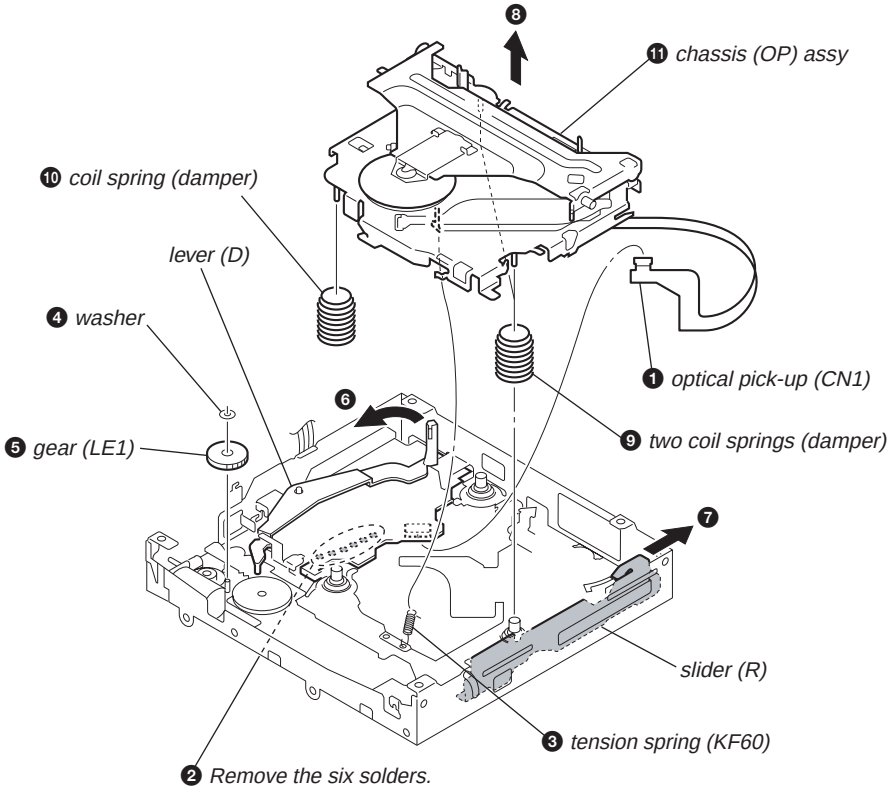
2-4. CHASSIS (T) SUB ASSY



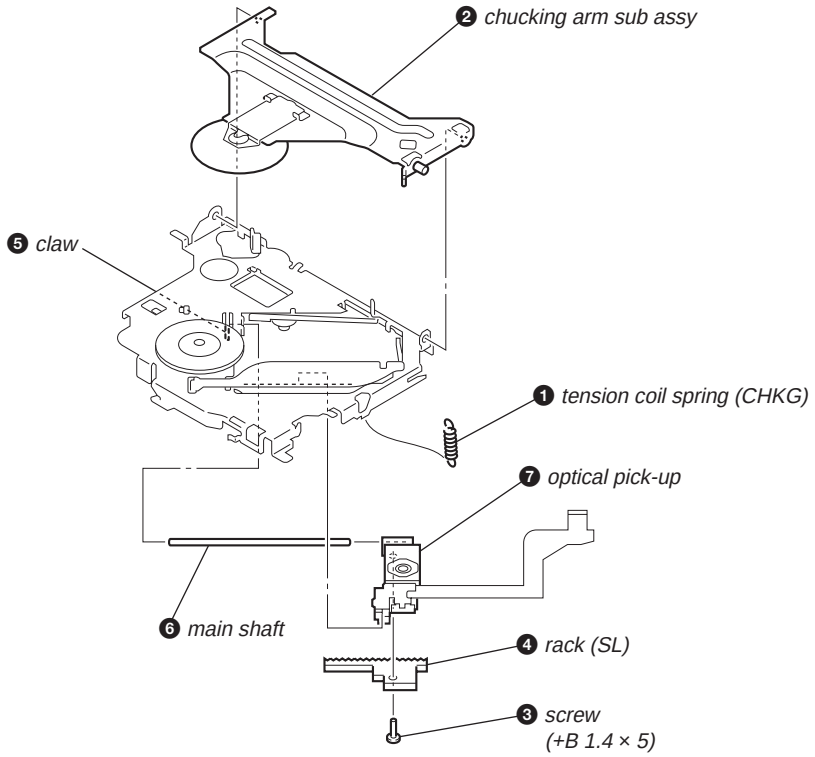
2-5. ROLLER ARM ASSY



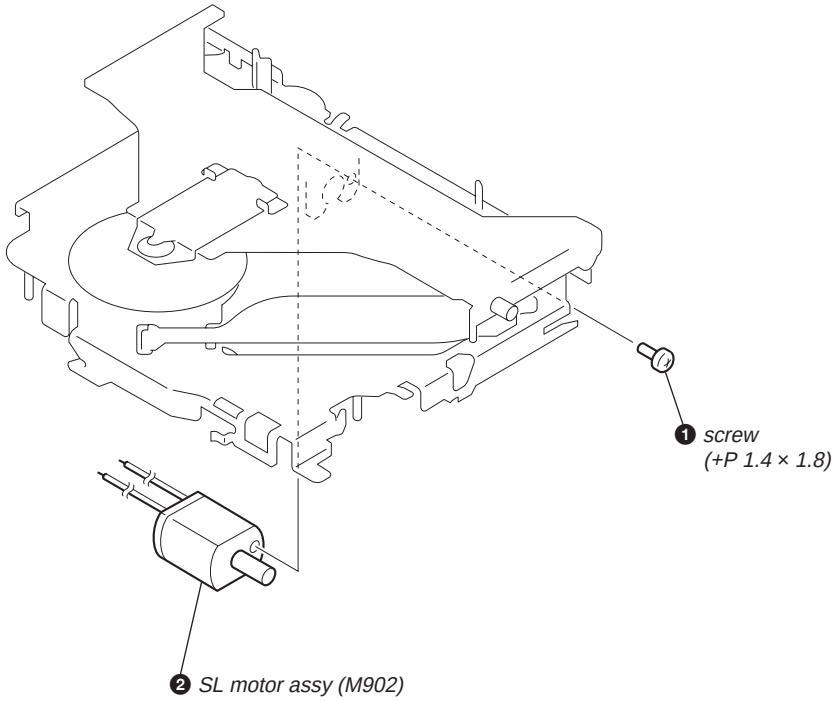
2-6. CHASSIS (OP) ASSY



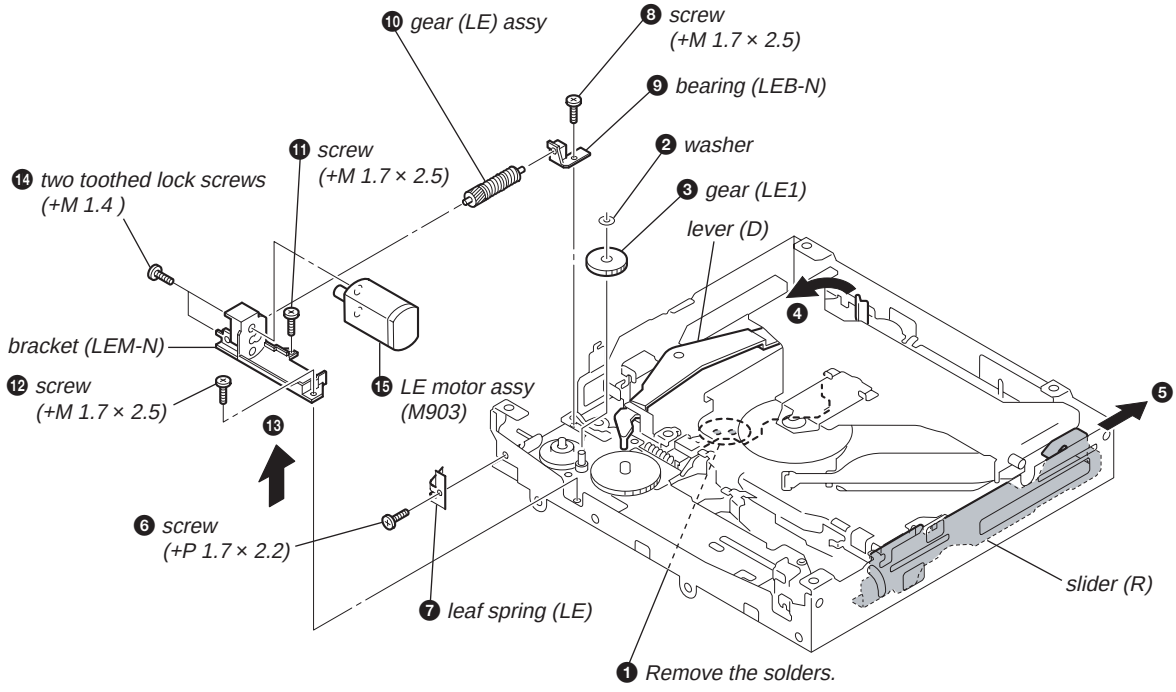
2-7. OPTICAL PICK-UP



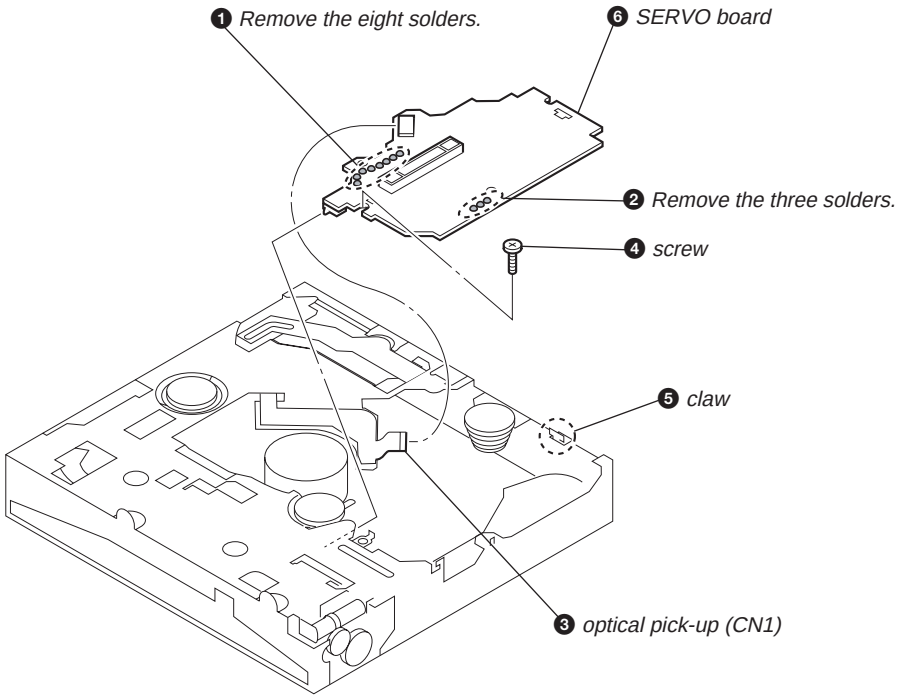
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)

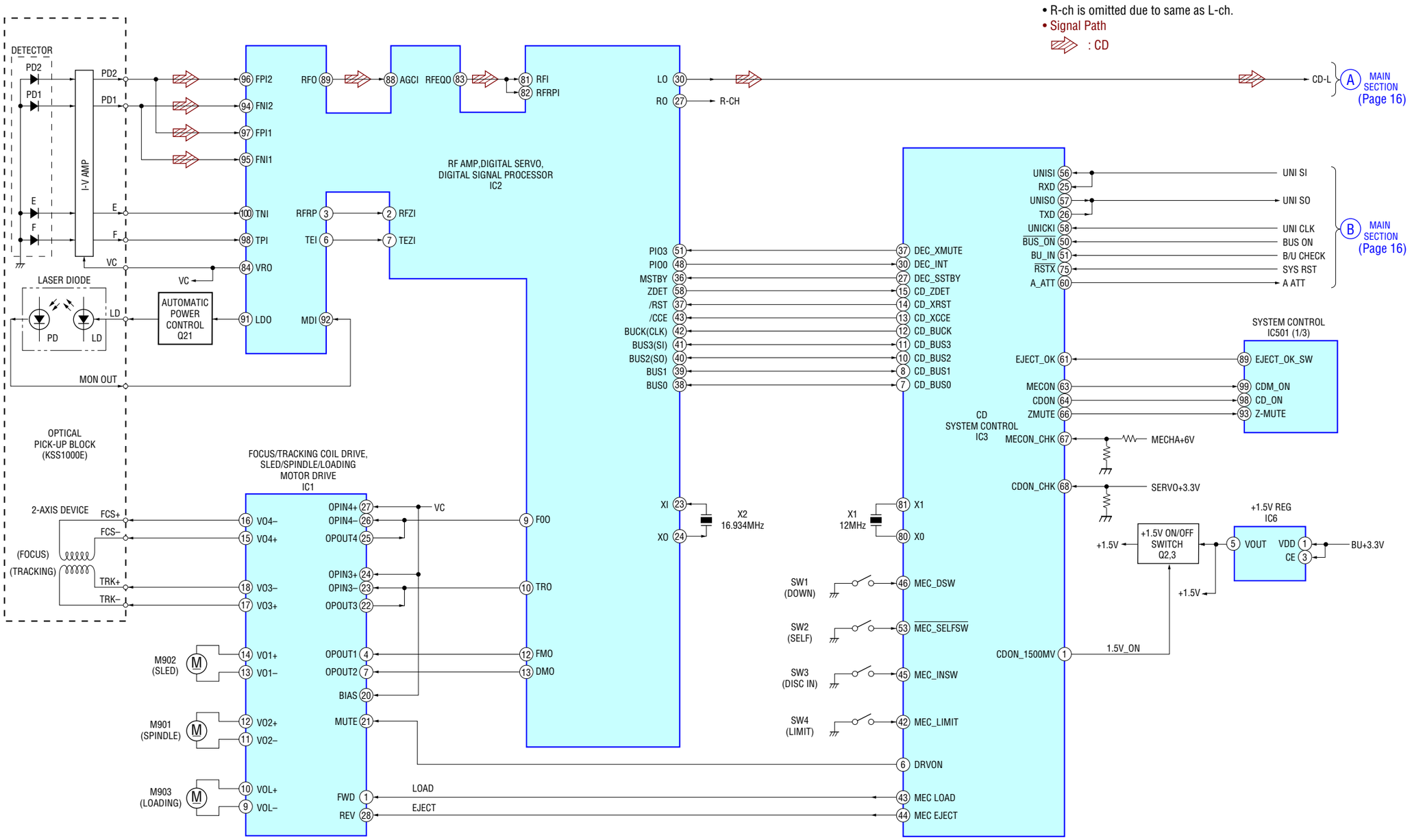


2-10. SERVO BOARD

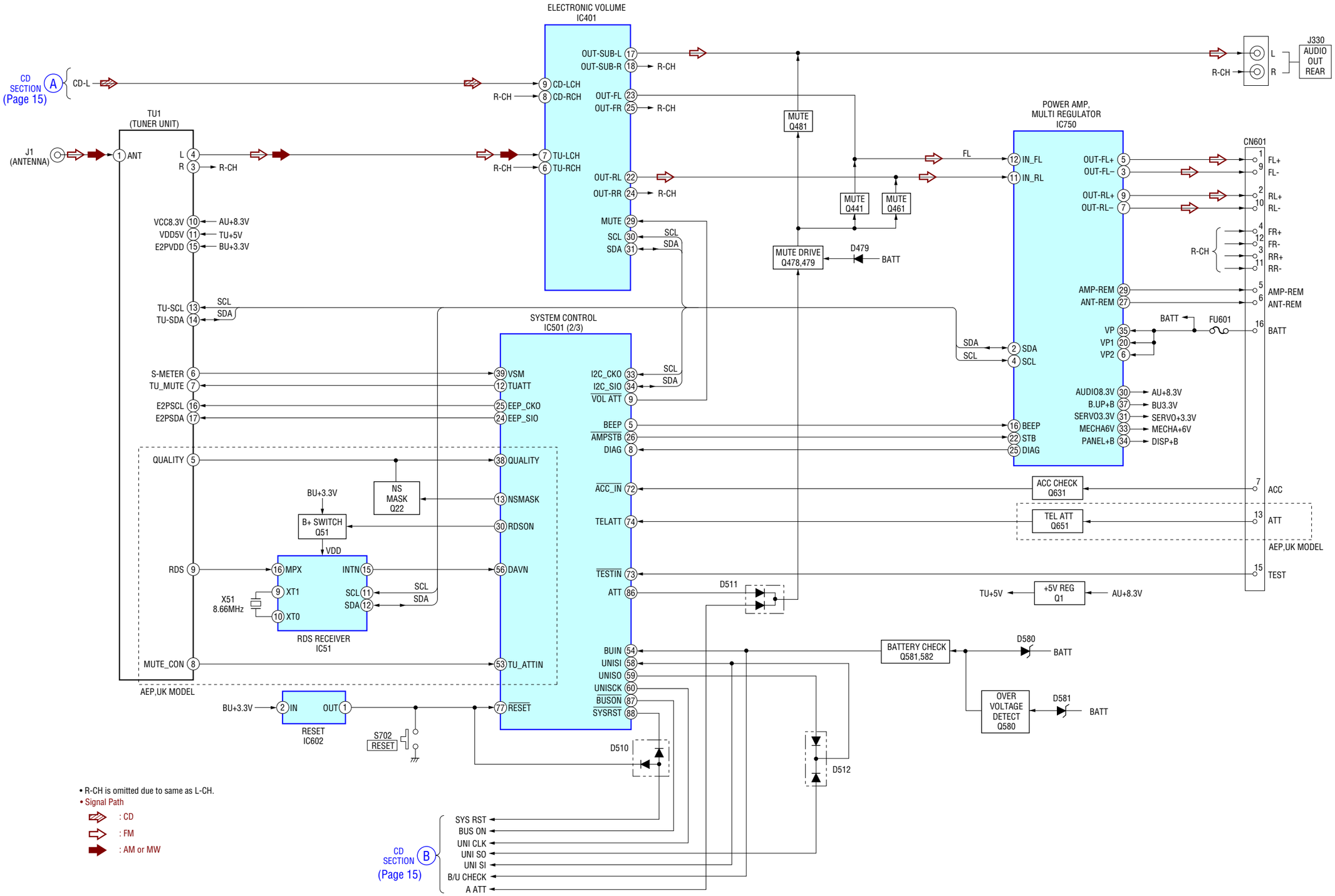


SECTION 3
DIAGRAMS

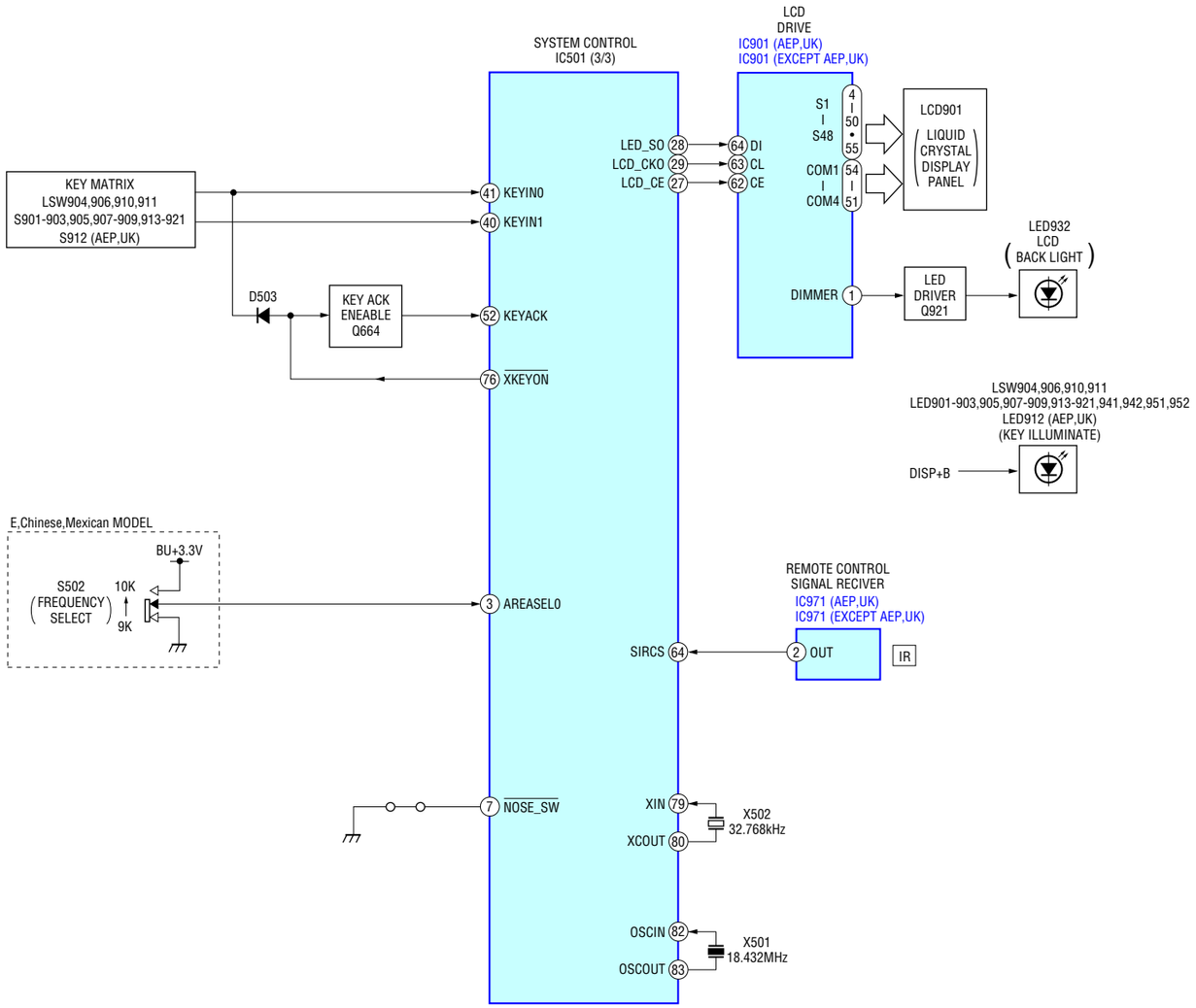
3-1. BLOCK DIAGRAM — CD SECTION —



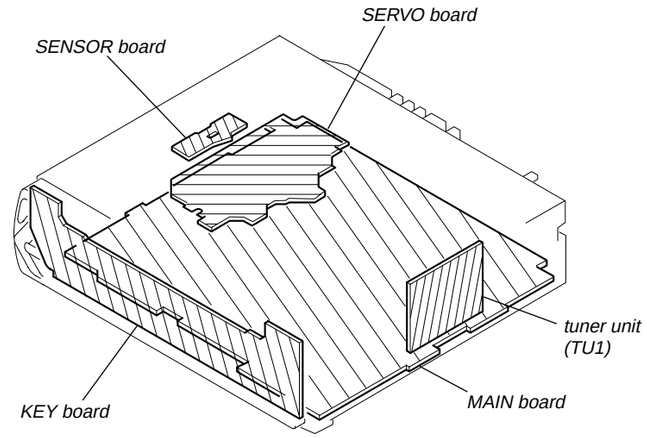
3-2. BLOCK DIAGRAM — MAIN SECTION —



3-3. BLOCK DIAGRAM — KEY SECTION —



3-4. CIRCUIT BOARDS LOCATION



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section (1/2), (2/2)
  no mark : CD PLAY
- Main (1/2), (2/2) and Key sections
  no mark : FM
  ( ) : AM or MW
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇛ : CD
  ⇨ : FM
  ➡ : AM or MW
- Abbreviation
  MX : Mexican model.
  CH : Chinese model.

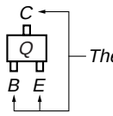
For printed wiring boards.

Note:

- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.



These are omitted.

These are omitted.

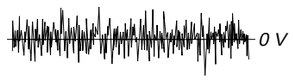
These are omitted.

- Abbreviation
  MX : Mexican model.
  CH : Chinese model.

• Waveforms

— SERVO Board — (CD PLAY)

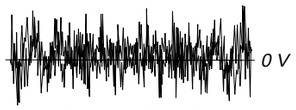
① IC2 ⑤ (FEI)



Approx. 100 mVp-p

50 mV/DIV, 5 msec/DIV

② IC2 ⑥ (TEI)



Approx. 400 mVp-p

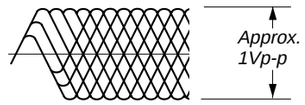
200 mV/DIV, 5 msec/DIV

③ IC2 ㉓ (XI)

16.9344 MHz

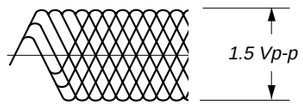
0.2 V/DIV, 0.2 μsec/DIV

④ IC2 ㊶ (RFI)



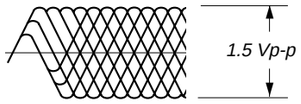
0.5 V/DIV, 0.5 μsec/DIV

⑤ IC2 ㊹ (FNI2), ㊺ (FNI1)



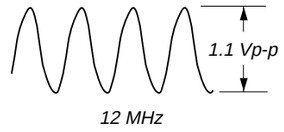
0.5 V/DIV, 0.5 μsec/DIV

⑥ IC2 ㊻ (FPI2), ㊼ (FPI1)



0.5 V/DIV, 0.5 μsec/DIV

⑦ IC3 ㊶ (X1)



12 MHz

0.5 V/DIV, 0.2 μsec/DIV

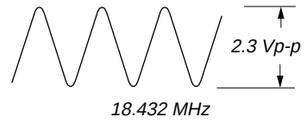
— MAIN Board —

① IC501 ㊽ (XOUT)

32.768 kHz

0.2 V/DIV, 20 μsec/DIV

② IC501 ㊸ (OSCOUT)



18.432 MHz

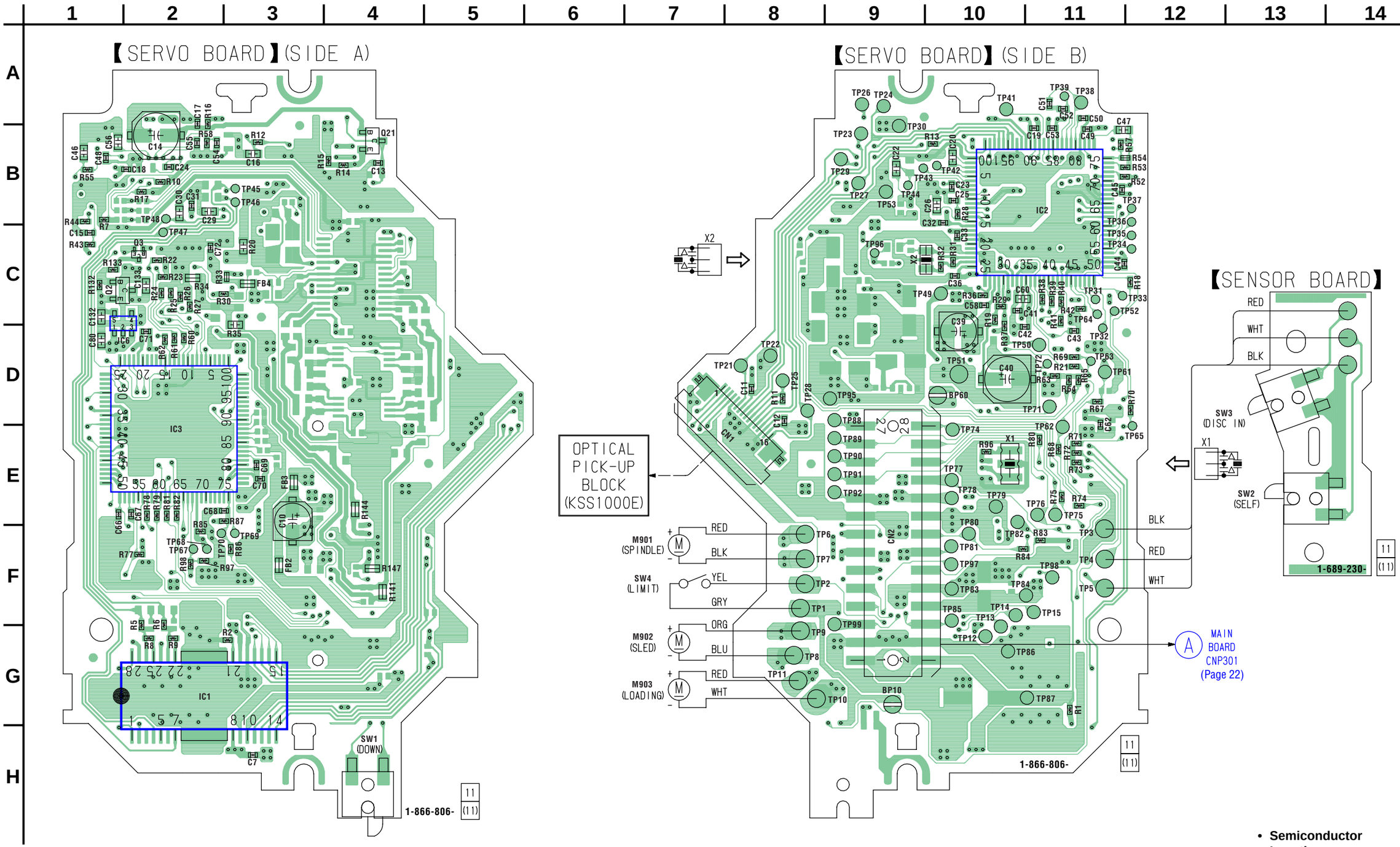
0.5 V/DIV, 0.1 μsec/DIV

③ IC51 ⑨ (XTI)

8.664 MHz

0.5 V/DIV, 0.2 μsec/DIV

3-5. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 17 for Circuit Boards Location. : Uses unleaded solder.

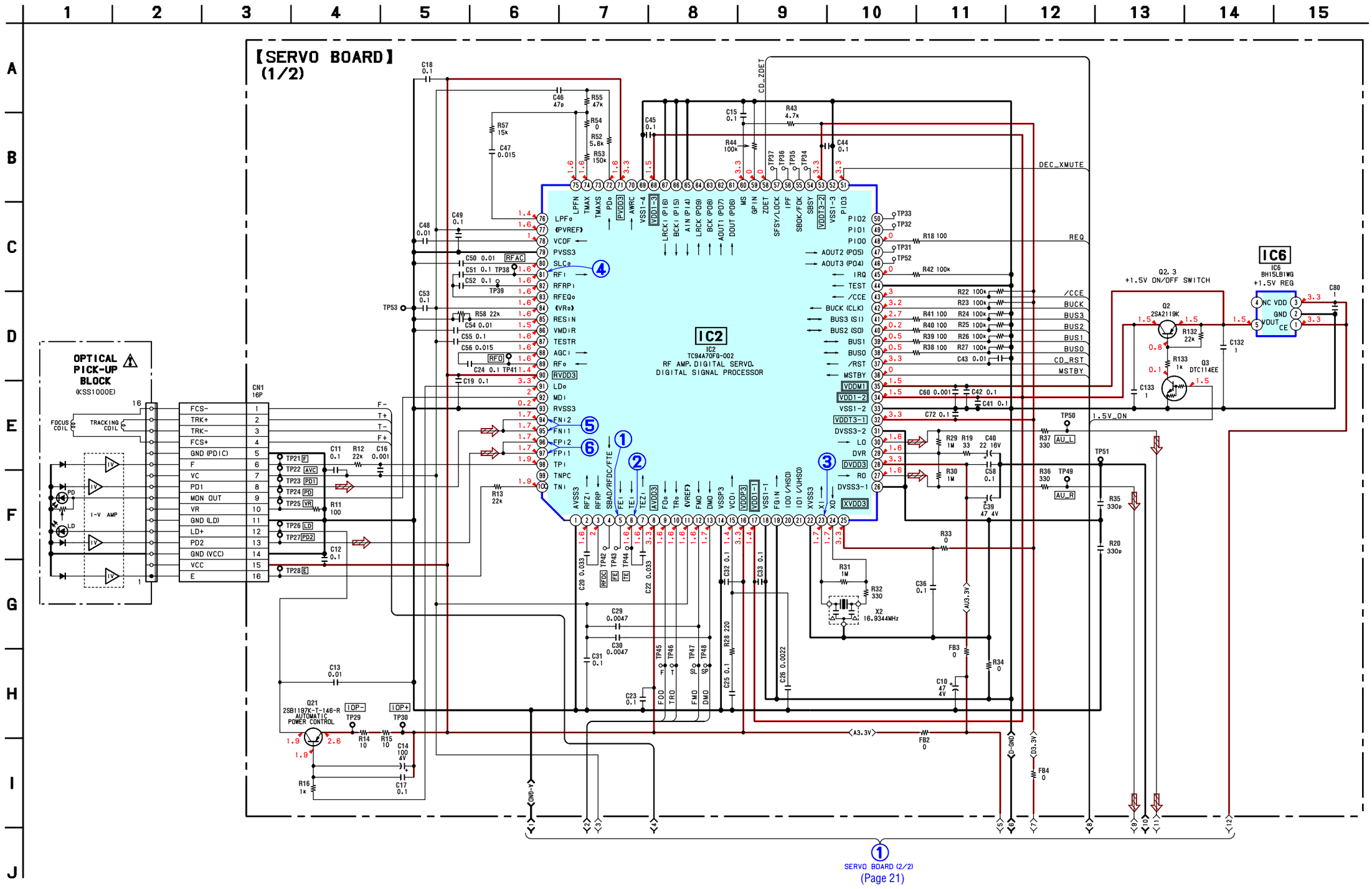


- **Semiconductor Location**

Ref. No.	Location
IC1	G-2
(IC2)	B-11
IC3	E-2
IC6	D-2
Q2	C-1
Q3	C-2
Q21	B-4

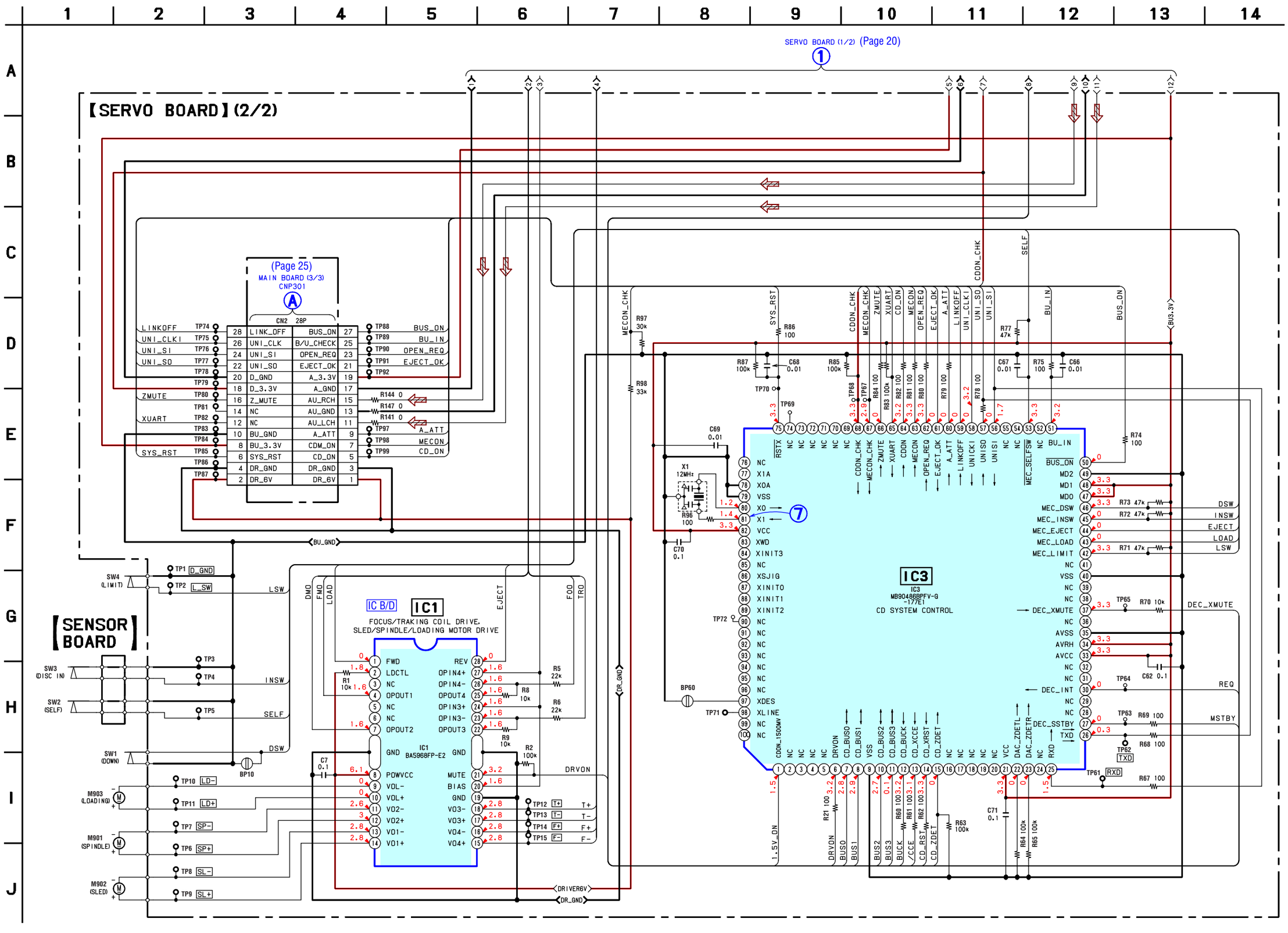
( ): SIDE B

3-6. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) — • Refer to page 18 for Waveforms.



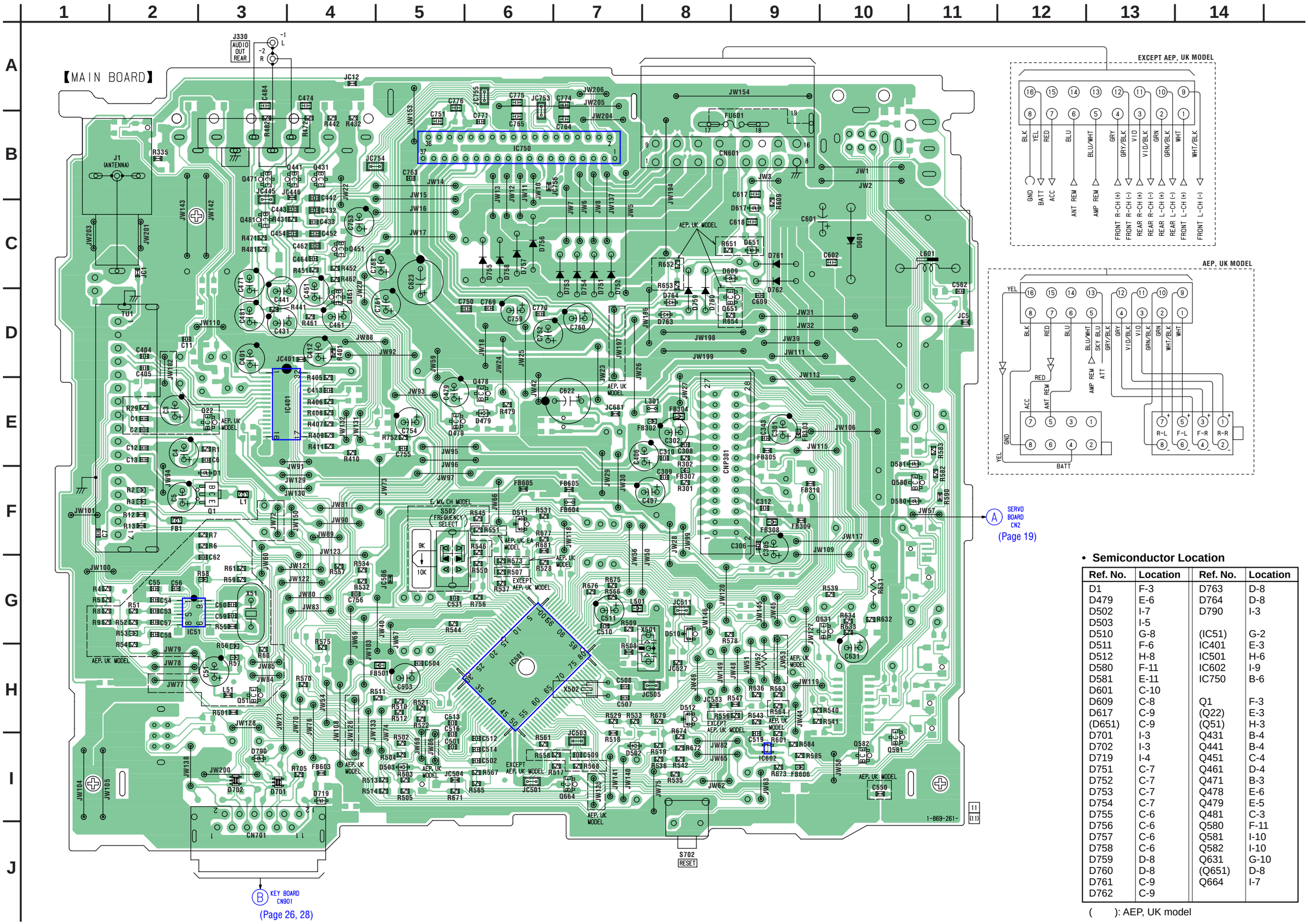
3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

• Refer to page 18 for Waveform.
• Refer to page 30 for IC Block Diagram.
• Refer to page 32 for IC Pin Descriptions.



3-8. PRINTED WIRING BOARD — MAIN SECTION —

• Refer to page 17 for Circuit Boards Location. : Uses unleaded solder.


【MAIN BOARD】
J330 AUDIO OUT REAR
J1 (ANTENNA)
IC750
IC401
IC501
IC51
IC602
CN601
CN701
FU601
S502 FREQUENCY SELECT
S702 RESET
X501
X502
E, MX, CH MODEL
AEP, UK MODEL
EXCEPT AEP, UK MODEL
AEP, UK, EA MODEL
EXCEPT AEP, UK, EA MODEL
EXCEPT AEP, UK MODEL
Ⓐ SERVO BOARD CN2
(Page 19)
Ⓑ KEY BOARD CN901
(Page 26, 28)
1-869-261-
EXCEPT AEP, UK MODEL
BLK YEL RED BLU BLU/WHT GRY GRY/BLK VIO VIO/BLK GRN GRN/BLK WHT WHT/BLK
GND BATT ACC ANT REM AMP REM
FRONT R-CH (+) FRONT R-CH (-) REAR R-CH (+) REAR R-CH (-) REAR L-CH (+) REAR L-CH (-) FRONT L-CH (+) FRONT L-CH (-)
AEP, UK MODEL
YEL BLK RED BLU BLU/WHT SKY BLU GRY/BLK GRY VIO/BLK VIO GRN/BLK GRN WHT/BLK WHT
ACC ANT REM AMP REM ATT
GND BATT
R-L F-L F-R R-R

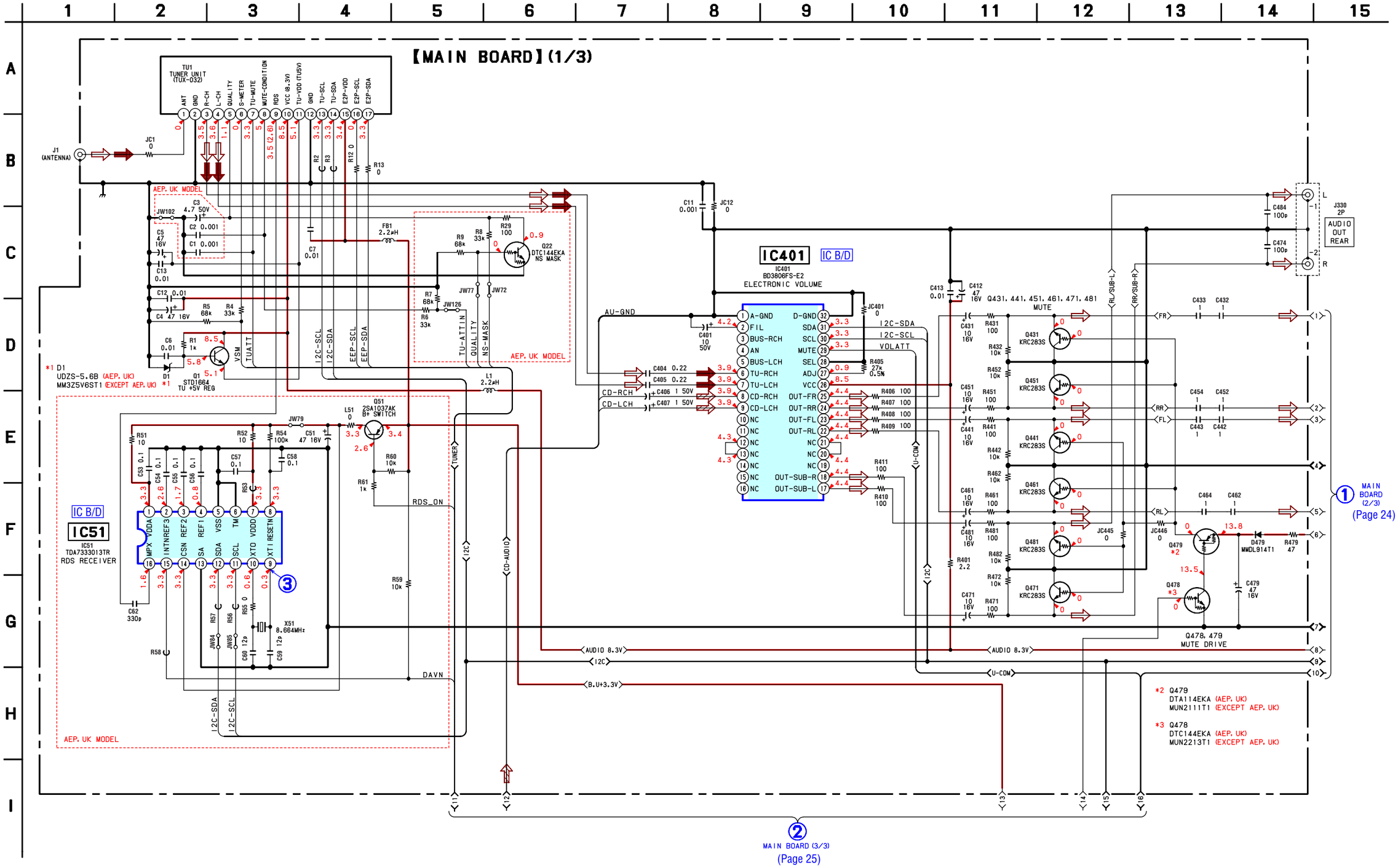
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	F-3	D763	D-8
D479	E-6	D764	D-8
D502	I-7	D790	I-3
D503	I-5		
D510	G-8	(IC51)	G-2
D511	F-6	IC401	E-3
D512	H-8	IC501	H-6
D580	F-11	IC602	I-9
D581	E-11	IC750	B-6
D601	C-10		
D609	C-8	Q1	F-3
D617	C-9	(Q22)	E-3
(D651)	C-9	(Q51)	H-3
D701	I-3	Q431	B-4
D702	I-3	Q441	B-4
D719	I-4	Q451	C-4
D751	C-7	Q461	D-4
D752	C-7	Q471	B-3
D753	C-7	Q478	E-6
D754	C-7	Q479	E-5
D755	C-6	Q481	C-3
D756	C-6	Q580	F-11
D757	C-6	Q581	I-10
D758	C-6	Q582	I-10
D759	D-8	Q631	G-10
D760	D-8	(Q651)	D-8
D761	C-9	Q664	I-7
D762	C-9		

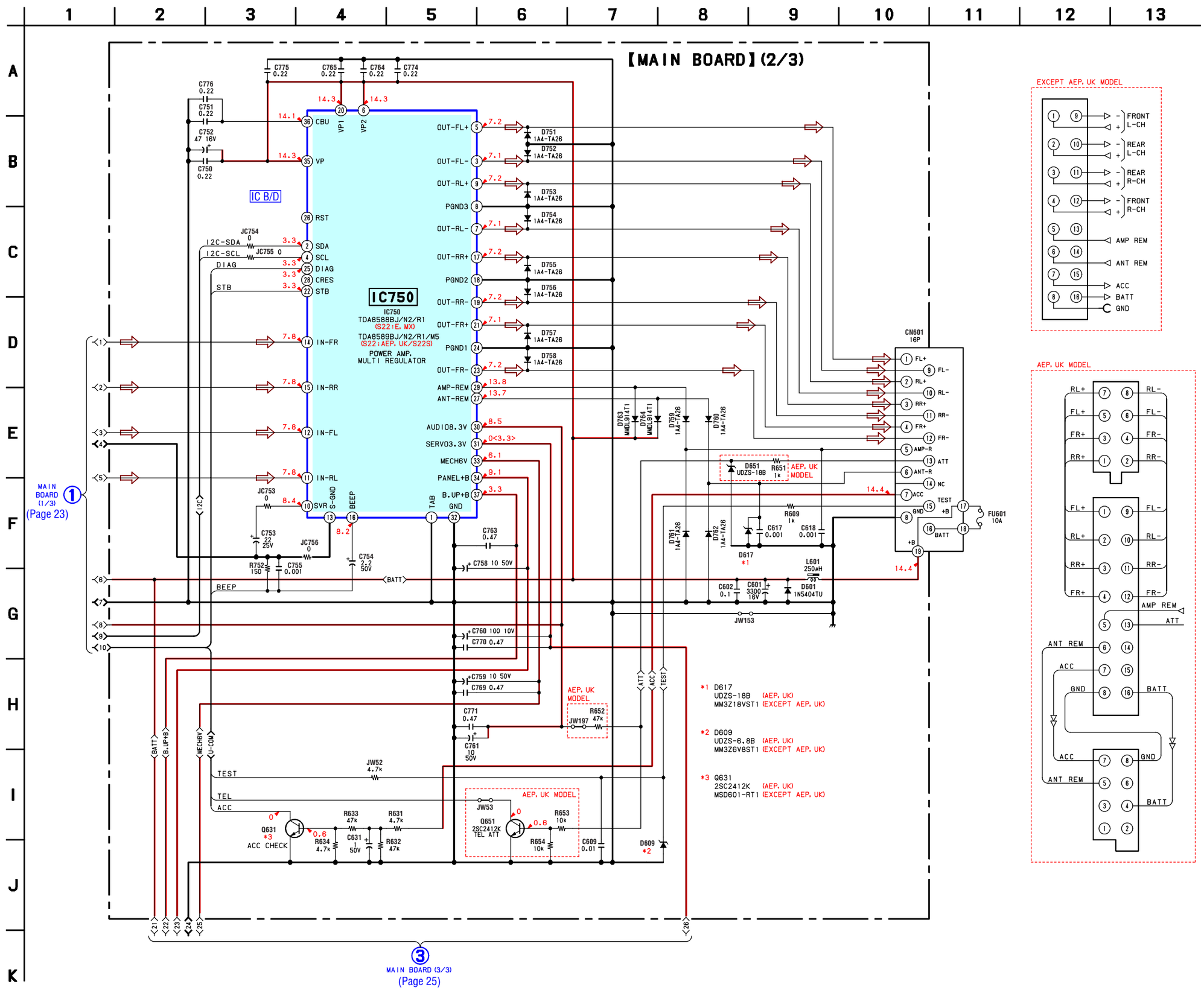
( ): AEP, UK model

3-9. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) —

• Refer to page 18 for Waveform.
• Refer to page 30 for IC Block Diagrams.

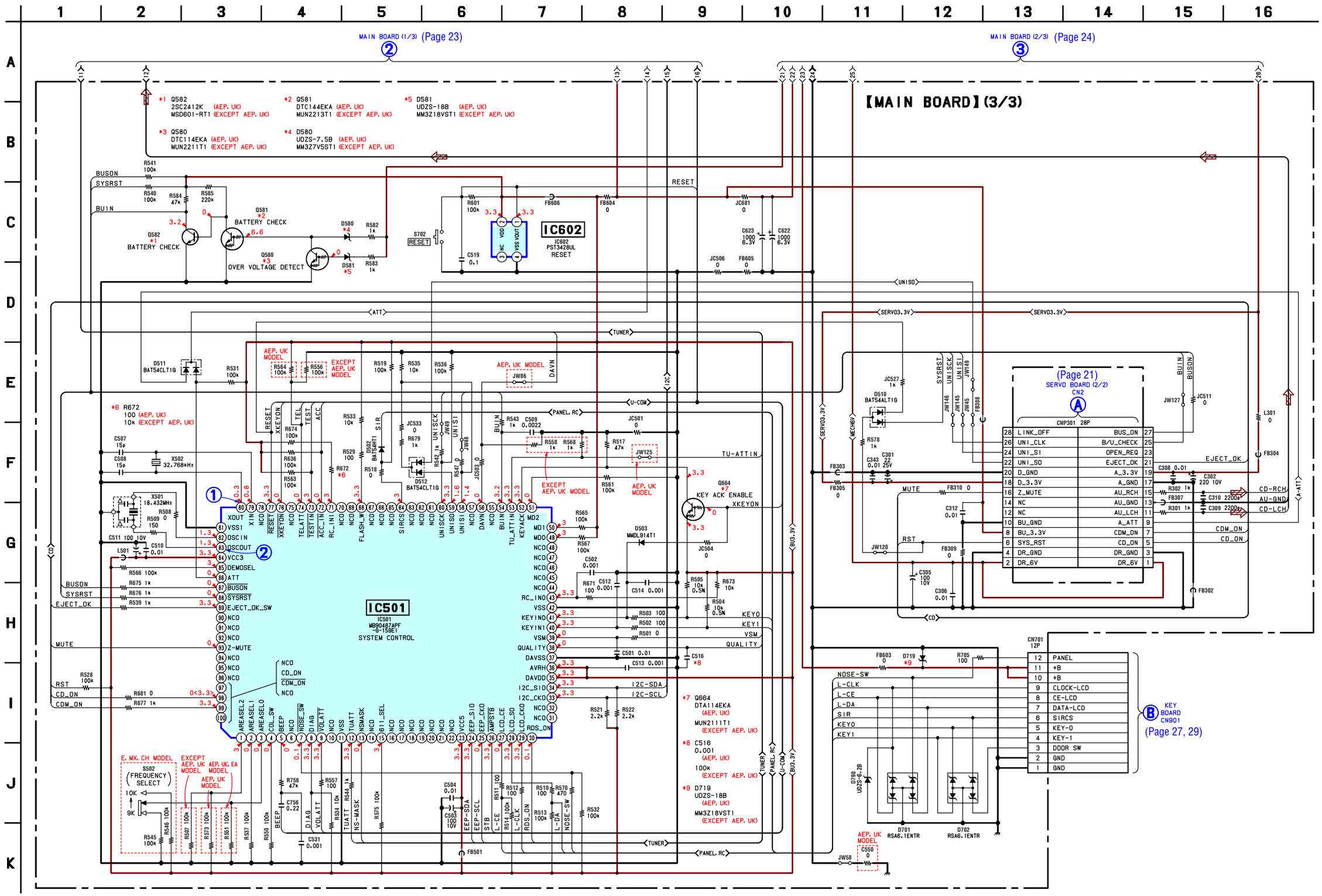


3-10. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) — • Refer to page 31 for IC Block Diagram.



3-11. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) —

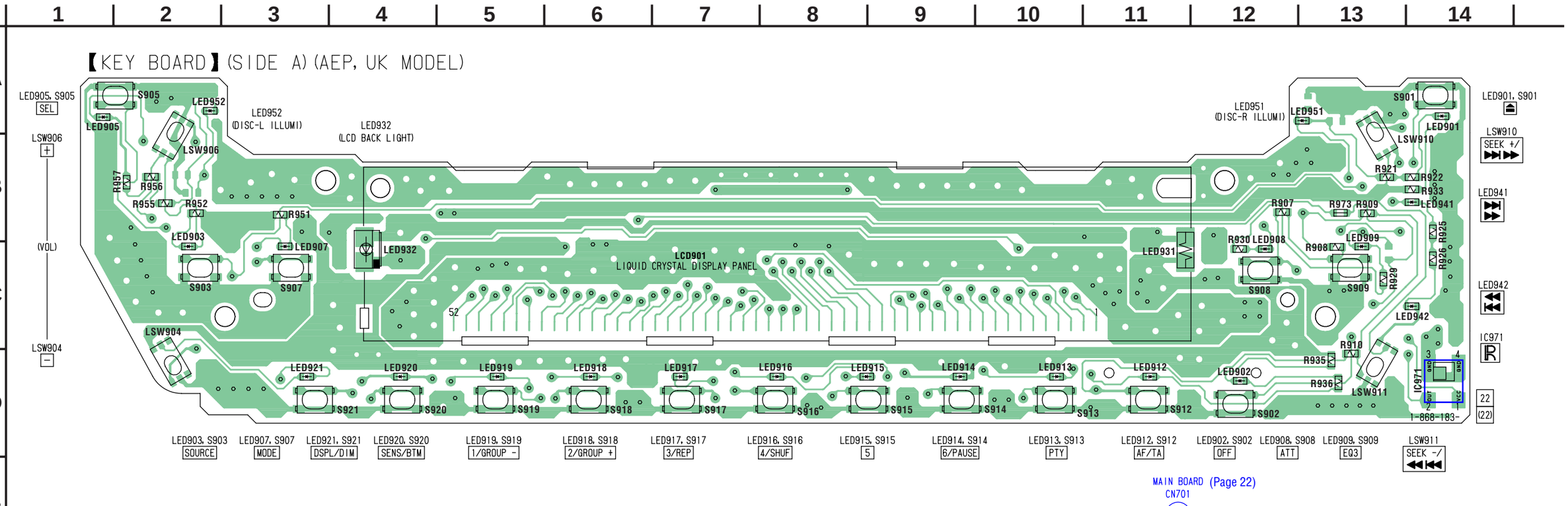
• Refer to page 18 for Waveforms.
• Refer to page 34 for IC Pin Descriptions.



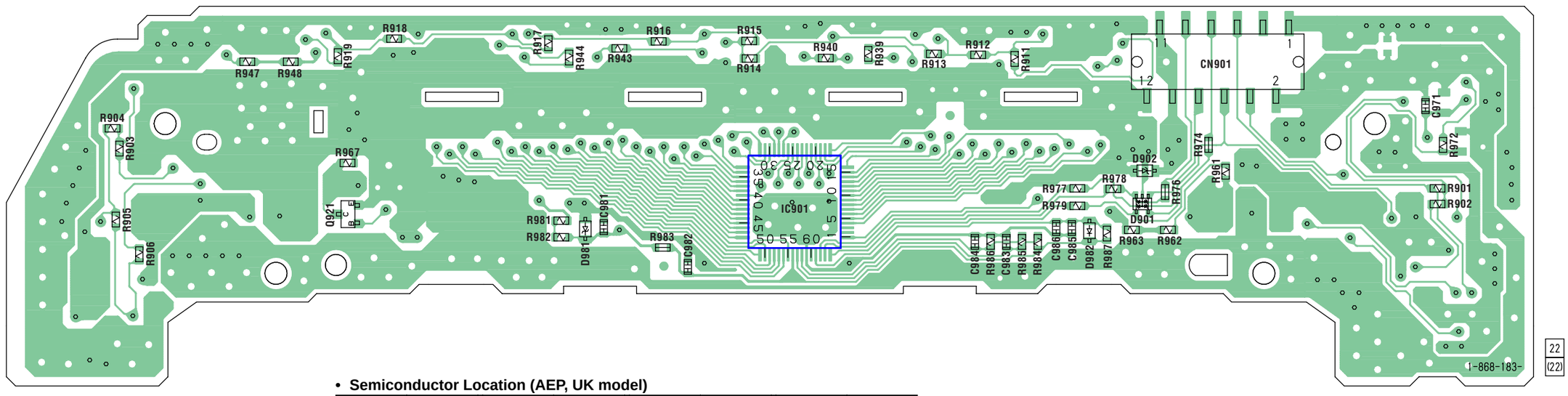
3-12. PRINTED WIRING BOARD — KEY SECTION (AEP, UK MODEL) —

• Refer to page 17 for Circuit Boards Location. : Uses unleaded solder.

【KEY BOARD】(SIDE A) (AEP, UK MODEL)



【KEY BOARD】(SIDE B) (AEP, UK MODEL)

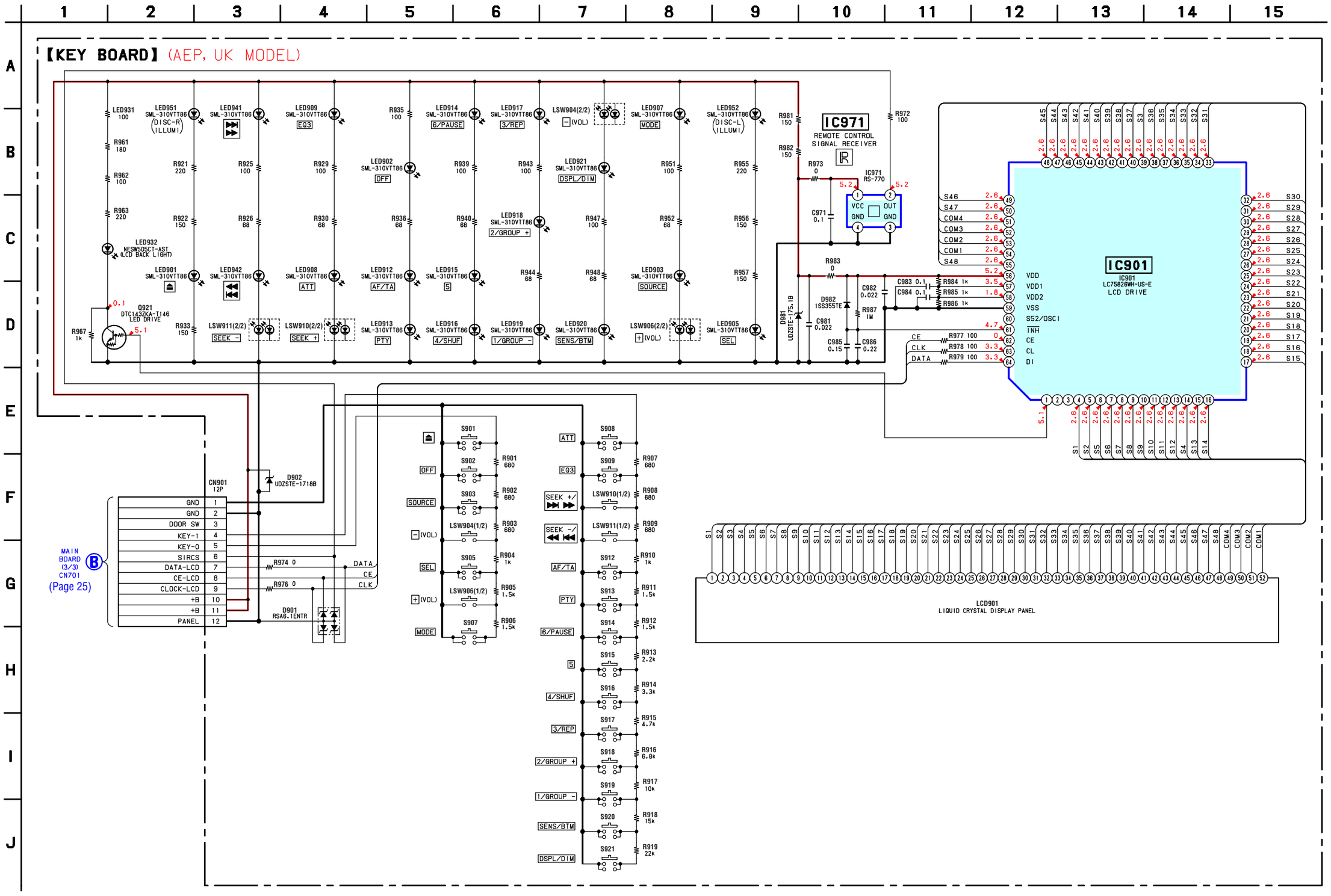


• **Semiconductor Location (AEP, UK model)**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
(D901)	G-11	LED901	A-14	LED913	D-10	LED921	D-3
(D902)	G-11	LED902	D-12	LED914	D-9	LED932	C-4
(D981)	G-6	LED903	C-2	LED915	D-8	LED941	B-14
(D982)	G-10	LED905	A-1	LED916	D-8	LED942	C-14
		LED907	C-3	LED917	D-7	LED951	A-13
(IC901)	G-8	LED908	C-12	LED918	D-6	LED952	A-2
IC971	D-14	LED909	C-13	LED919	D-5		
		LED912	D-11	LED920	D-4	(Q921)	G-4

( ): SIDE B

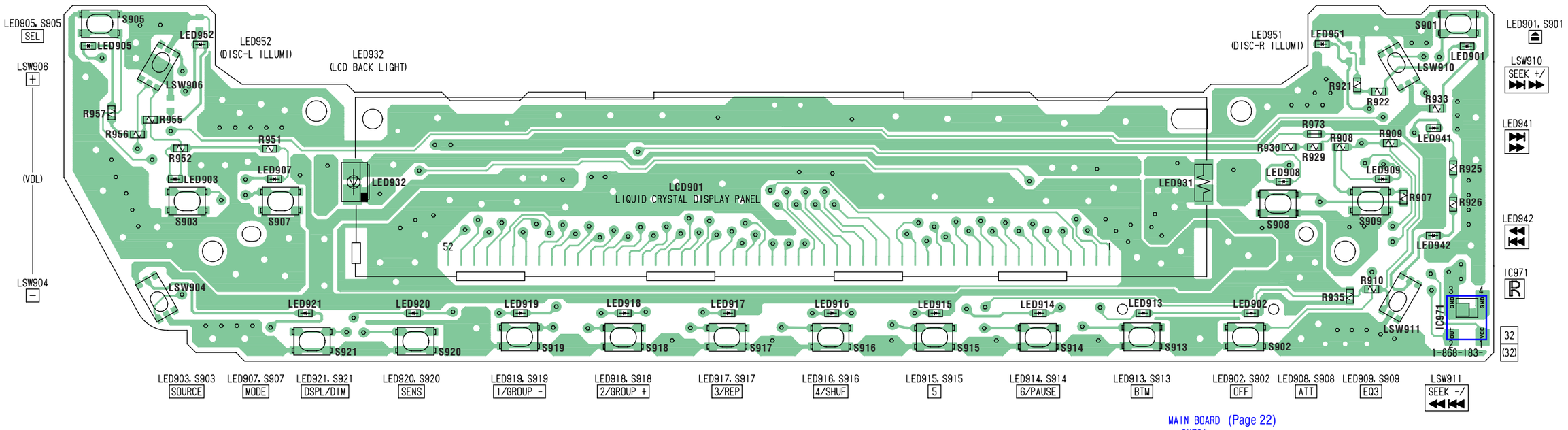
3-13. SCHEMATIC DIAGRAM — KEY SECTION (AEP, UK MODEL) —



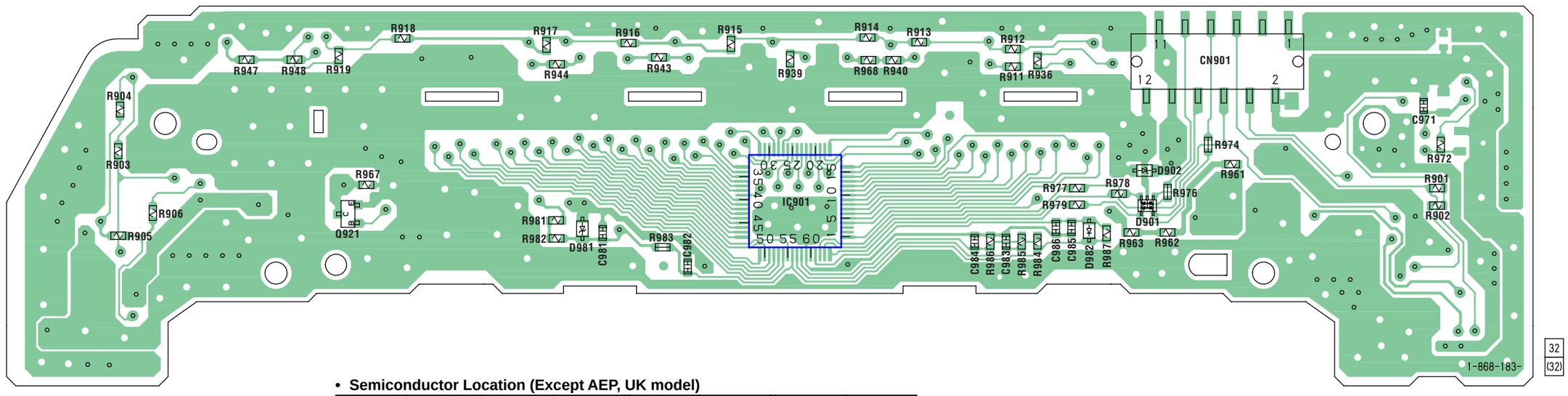
3-14. PRINTED WIRING BOARD — KEY SECTION (EXCEPT AEP, UK MODEL) —

• Refer to page 17 for Circuit Boards Location. : Uses unleaded solder.

【KEY BOARD】(SIDE A) (EXCEPT AEP, UK MODEL)



【KEY BOARD】(SIDE B) (EXCEPT AEP, UK MODEL)

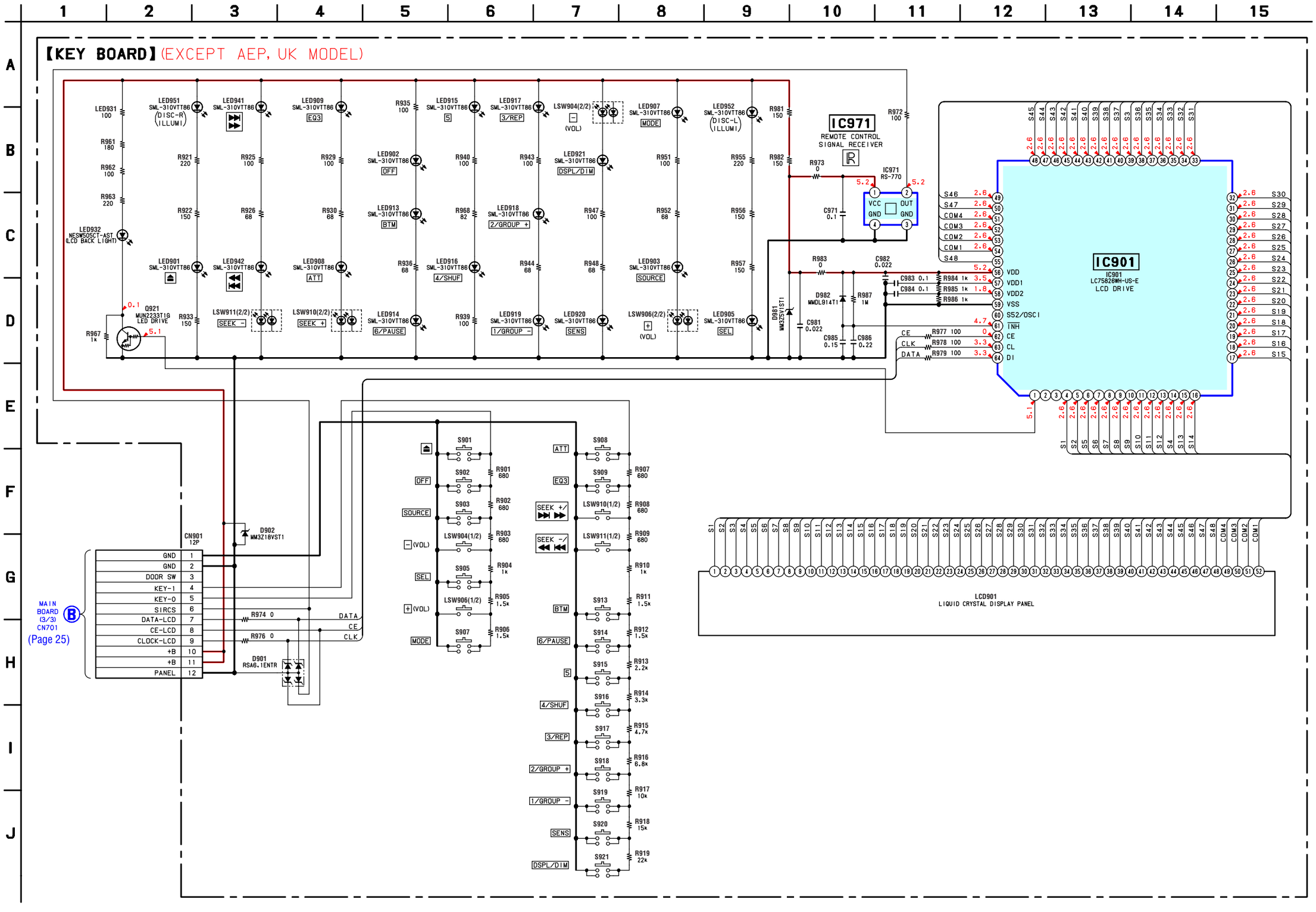


• **Semiconductor Location (Except AEP, UK model)**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
(D901)	G-11	LED901	A-14	LED914	D-10	LED932	C-4
(D902)	G-11	LED902	D-12	LED915	D-9	LED941	B-14
(D981)	G-6	LED903	C-2	LED916	D-8	LED942	C-14
(D982)	G-10	LED905	A-1	LED917	D-7	LED951	A-13
		LED907	C-3	LED918	D-6	LED952	A-2
(IC901)	G-8	LED908	C-12	LED919	D-5		
IC971	D-14	LED909	C-13	LED920	D-4	(Q921)	G-4
		LED913	D-11	LED921	D-3		

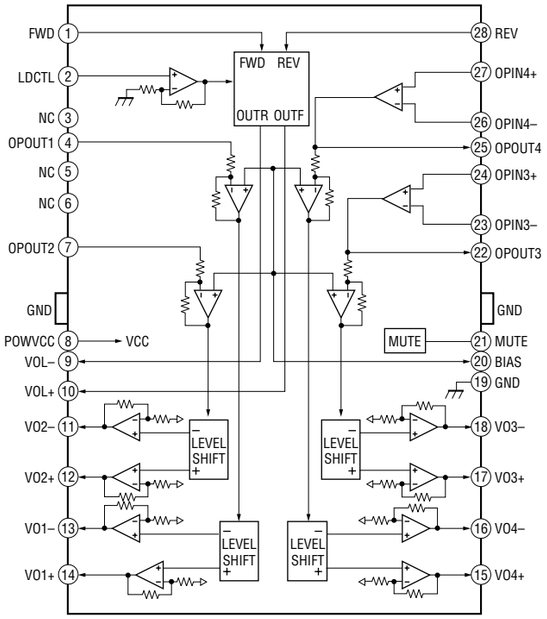
( ): SIDE B

3-15. SCHEMATIC DIAGRAM — KEY SECTION (EXCEPT AEP, UK MODEL) —

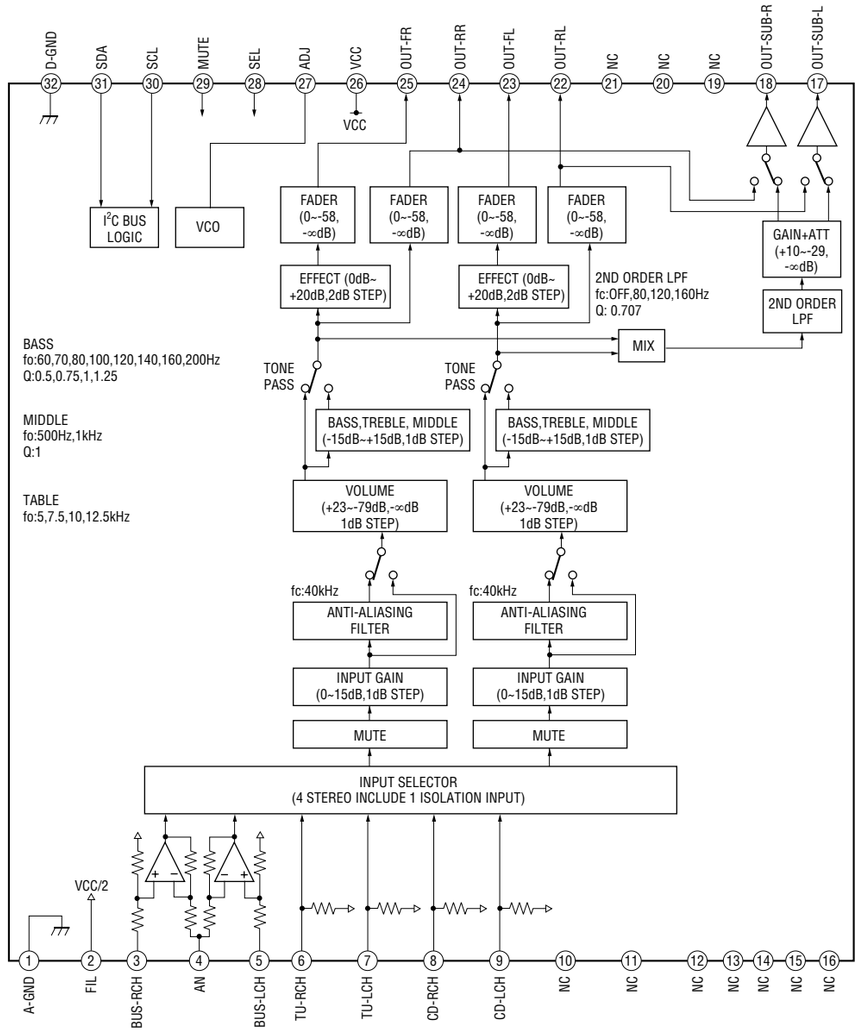


• IC Block Diagrams

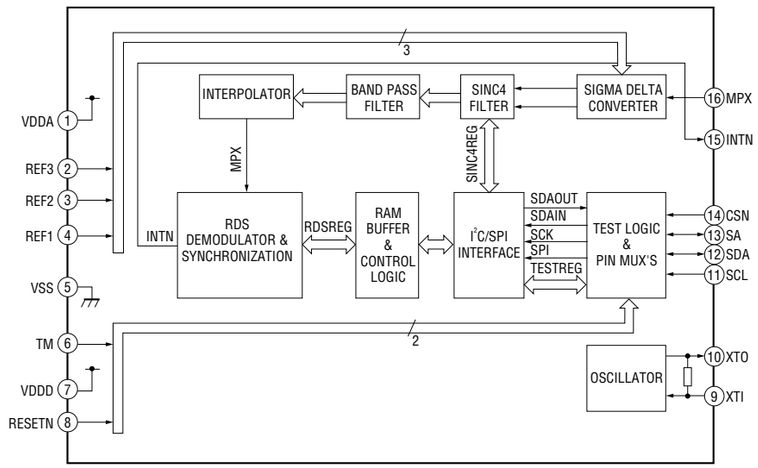
IC1 BA5968FP-E2 (SERVO Board (2/2))



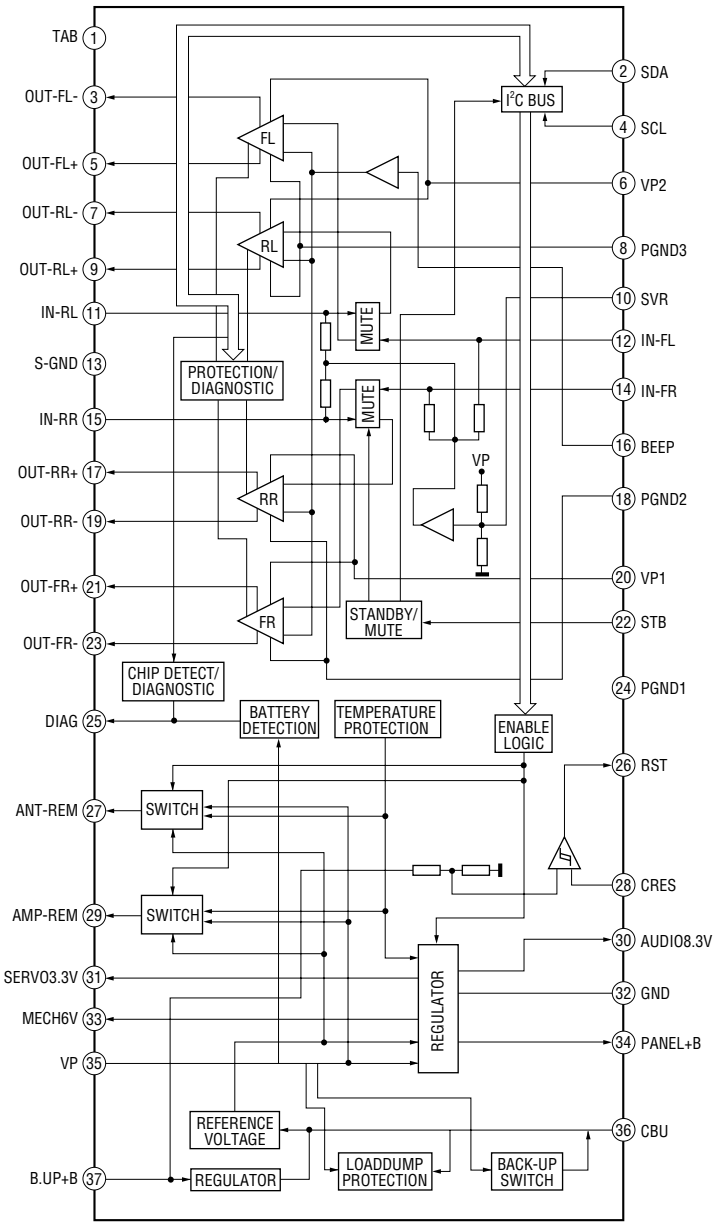
IC401 BD3806FS-E2 (MAIN Board (1/3))



IC51 TDA7333013TR (MAIN Board (1/3)) (AEP, UK model)



IC750 TDA8588BJ/N2/R1 (MAIN Board (2/3)) (CDX-S22: E, MX model)
IC750 TDA8589BJ/N2/R1/M5 (MAIN Board (2/3)) (CDX-S22: AEP, UK/S22S)



• IC Pin Descriptions

IC3 MB90486BPFV-G-177E1 (CD SYSTEM CONTROL) (SERVO BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	CDON_1500MV	O	Servo 1.5 V power supply control signal output
2 to 5	NC	O	Not used. (Open)
6	DRVON	O	Motor drive mute signal output
7	CD_BUS0	I/O	Bus data input/output 0
8	CD_BUS1	I/O	Bus data input/output 1
9	VSS	—	Ground
10	CD_BUS2	I/O	Bus data input/output 2
11	CD_BUS3	I/O	Bus data input/output 3
12	CD_BUCK	O	Bus clock signal output
13	CD_XCCE	O	Chip enable signal output
14	CD_XRST	O	Reset signal output
15	CD_ZDET	I	Zero detection signal input
16 to 20	NC	O	Not used. (Open)
21	VCC	—	Power supply pin (+3.3 V)
22	DAC_ZDETL	I	Zero data detection signal input (L-ch) (Fixed at L in this set)
23	DAC_ZDETR	I	Zero data detection signal input (R-ch) (Fixed at L in this set)
24	NC	O	Not used. (Open)
25	RXD	I	UART RXD data input (MCBUS/flash data input)
26	TXD	O	UART TXD data output (MCBUS/flash data output)
27	DEC_SSTBY	O	SRAM standby mode control signal output
28, 29	NC	O	Not used. (Open)
30	DEC_INT	I	Request signal input
31, 32	NC	O	Not used. (Open)
33	AVCC	—	Power supply pin for A/D converter. (+3.3 V)
34	AVRH	—	External reference power supply pin for A/D converter. (+3.3 V)
35	AVSS	—	Ground for A/D converter.
36	NC	O	Not used. (Open)
37	DEC_XMUTE	O	Mute signal output (L: mute)
38, 39	NC	O	Not used. (Open)
40	VSS	—	Ground
41	NC	O	Not used. (Open)
42	MEC_LIMIT	I	Sled LIMIT in switch detection signal input
43	MEC_LOAD	O	Loading motor control signal output (Loading direction)
44	MEC_EJECT	O	Loading motor control signal output (Eject direction)
45	MEC_INSW	I	DISC IN switch detection signal input
46	MEC_DSW	I	DOWN switch detection signal input
47, 48	MD0, MD1	I	Input for operation mode designation. (Fixed at H in this set)
49	MD2	I	Input for operation mode designation. (Connect to VSS in this set)
50	$\overline{\text{BUS\_ON}}$	I	Bus on signal input (L: bus on)
51	BU_IN	I	Backup power supply detection signal input
52	NC	O	Not used. (Open)
53	$\overline{\text{MEC\_SELFSW}}$	I	SELF load position detection switch signal input
54, 55	NC	O	Not used. (Open)
56	UNISI	I	SONY-BUS data signal input
57	UNISO	O	SONY-BUS data signal output
58	UNICKI	I	SONY-BUS clock signal input
59	LINKOFF	O	Link off signal output
60	A_ATT	O	Audio attenuator signal output

Pin No.	Pin Name	I/O	Pin Description
61	EJECT_OK	I	Eject OK signal input
62	OPEN_REQ	O	Front panel open/close request signal output
63	MECON	O	CD mechanism deck power supply control signal output
64	CDON	O	CD power supply control signal output
65	XUART	I	SONY-BUS/MC-BUS change signal input (Fixed at H: SONY-BUS in this set)
66	ZMUTE	O	Z mute signal output
67	MECON_CHK	I	MECHA +6V power rising detection signal input
68	CDON_CHK	I	SERVO +3.3V power rising detection signal input
69 to 74	NC	O	Not used. (Open)
75	$\overline{\text{RSTX}}$	I	System reset signal input
76	NC	O	Not used. (Open)
77	X1A	—	Not used. (Open)
78	X0A	—	Not used. (Connect to VSS)
79	VSS	—	Ground
80	X0	I	Main-clock signal input (12 MHz)
81	X1	O	Main-clock signal output (12 MHz)
82	VCC	—	Power supply pin (+3.3 V)
83	XWD	I	Not used. (Open)
84	XINIT3	I	Not used. (Open)
85	NC	O	Not used. (Open)
86	XSJIG	I	Not used. (Open)
87	XINIT0	I	Not used. (Open)
88	XINIT1	I	Not used. (Open)
89	XINIT2	I	Not used. (Open)
90 to 96	NC	O	Not used. (Open)
97	XDES	I	Destination setting pin
98	XLINE	I	Not used. (Open)
99, 100	NC	O	Not used. (Open)

IC501 MB90487APF-G-159E1 (SYSTEM CONTROL) (MAIN BOARD (3/3))

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL2	I	Destination setting pin (L: Except AEP, UK model, H: AEP, UK model)
2	AREASEL1	I	Destination setting pin (Fixed at L in this set)
3	AREASEL0	I	Destination setting pin (L: 9K, H: 10K)
4	COL_SW	I	Illumination color select signal input (Fixed at L in this set)
5	BEEP	O	Beep signal output to power amp IC.
6	NCO	O	Not used. (Open)
7	$\overline{\text{NOSE\_SW}}$	I	Front panel detach detection signal input
8	DIAG	I	Status signal input from power amp IC.
9	$\overline{\text{VOLATT}}$	O	Attenuator control signal output to electronic volume IC.
10	NCO	O	Not used. (Open)
11	VSS	—	Ground
12	TUATT	O	Tuner mute control signal output
13	NSMASK	O	Noise mask signal output
14	NCO	O	Not used. (Open)
15	611_SEL	I	CD mechanism deck setting pin (Fixed at H: 611WA in this set)
16 to 22	NCO	O	Not used. (Open)
23	VCC5	—	Power supply pin (+3.3 V)
24	EEP_SIO	I/O	Serial data signal input/output for EEPROM communication.
25	EEP_CKO	O	Serial clock signal output for EEPROM communication.
26	$\overline{\text{AMPSTB}}$	O	Standby signal output to power amp IC.
27	LCD_CE	O	Chip enable signal output to LCD drive IC.
28	LCD_SO	O	Serial data signal output to LCD drive IC.
29	LCD_CKO	O	Serial clock signal output to LCD drive IC.
30	RDS_ON	O	RDS ON signal output (AEP, UK model)
31, 32	NCO	O	Not used. (Open)
33	I2C_CKO	O	I2C bus serial clock signal output
34	I2C_SIO	I/O	I2C bus serial data signal input/output
35	DAVDD	—	Power supply pin for A/D converter. (+3.3 V)
36	AVRH	—	External reference power supply pin for A/D converter. (+3.3 V)
37	DAVSS	—	Ground for A/D converter.
38	QUALITY	I	Noise detection signal input (AEP, UK model)
39	VSM	I	S meter voltage detection signal input
40	KEYIN1	I	Key signal input 1
41	KEYIN0	I	Key signal input 0
42	VSS	—	Ground
43	RC_IN0	I	Rotary commander key signal input (Fixed at H in this set)
44 to 48	NCO	O	Not used. (Open)
49, 50	MD0, MD1	I	Signal input for operation mode designation. (Fixed at H in this set)
51	MD2	I	Signal input for operation mode designation. (Fixed at L in this set)
52	KEYACK	I	Key acknowledge detection signal input
53	TU_ATTIN	I	Tuner mute zero cross detection signal input (AEP, UK model)
54	BUIN	I	Backup power supply detection signal input
55	NCO	O	Not used. (Open)
56	DAVN	I	RDS data block synchronized detection signal input from RDS receiver IC. (AEP, UK model)
57	NCO	O	Not used. (Open)
58	UNISI	I	SONY-BUS data signal input
59	UNISO	O	SONY-BUS data signal output
60	UNISCK	O	SONY-BUS clock signal output

Pin No.	Pin Name	I/O	Pin Description
61 to 63	NCO	O	Not used. (Open)
64	SIRCS	I	Remote controller signal (infrared rays) input
65 to 67	NCO	O	Not used. (Open)
68	FLASH_W	I	Memory mode select signal input (Fixed at H in this set)
69, 70	NCO	O	Not used. (Open)
71	RC_IN1	I	Rotary commander shift key signal input (Fixed at H in this set)
72	$\overline{\text{ACC\_IN}}$	I	Accessory power supply detection signal input
73	$\overline{\text{TESTIN}}$	I	Test mode detection signal input
74	TELATT	I	Telephone attenuator detection signal input (AEP, UK model)
75	NCO	O	Not used. (Open)
76	$\overline{\text{XKEYON}}$	O	A/D converter power supply control signal output
77	$\overline{\text{RESET}}$	I	Reset signal input
78	NCO	O	Not used. (Open)
79	XIN	I	Sub-clock signal input (32.768 kHz)
80	XOUT	O	Sub-clock signal output (32.768 kHz)
81	VSS1	—	Ground
82	OSCIN	I	Main-clock signal input (18.432 MHz)
83	OSCOUT	O	Main-clock signal output (18.432 MHz)
84	VCC3	—	Power supply pin (+3.3 V)
85	DEMOSEL	I	Demo select signal input (L: Demo OFF, H: Demo ON)
86	ATT	O	Audio mute control signal output
87	$\overline{\text{BUSON}}$	O	Bus ON signal output
88	$\overline{\text{SYSRST}}$	O	System reset signal output
89	EJECT_OK_SW	O	Eject OK signal output
90 to 92	NCO	O	Not used. (Open)
93	Z-MUTE	I	Z mute signal input
94 to 97	NCO	O	Not used. (Open)
98	CD_ON	I	CD mechanism deck servo power control request signal input
99	$\overline{\text{CDM\_ON}}$	I	CD mechanism deck power control request signal input
100	NCO	O	Not used. (Open)

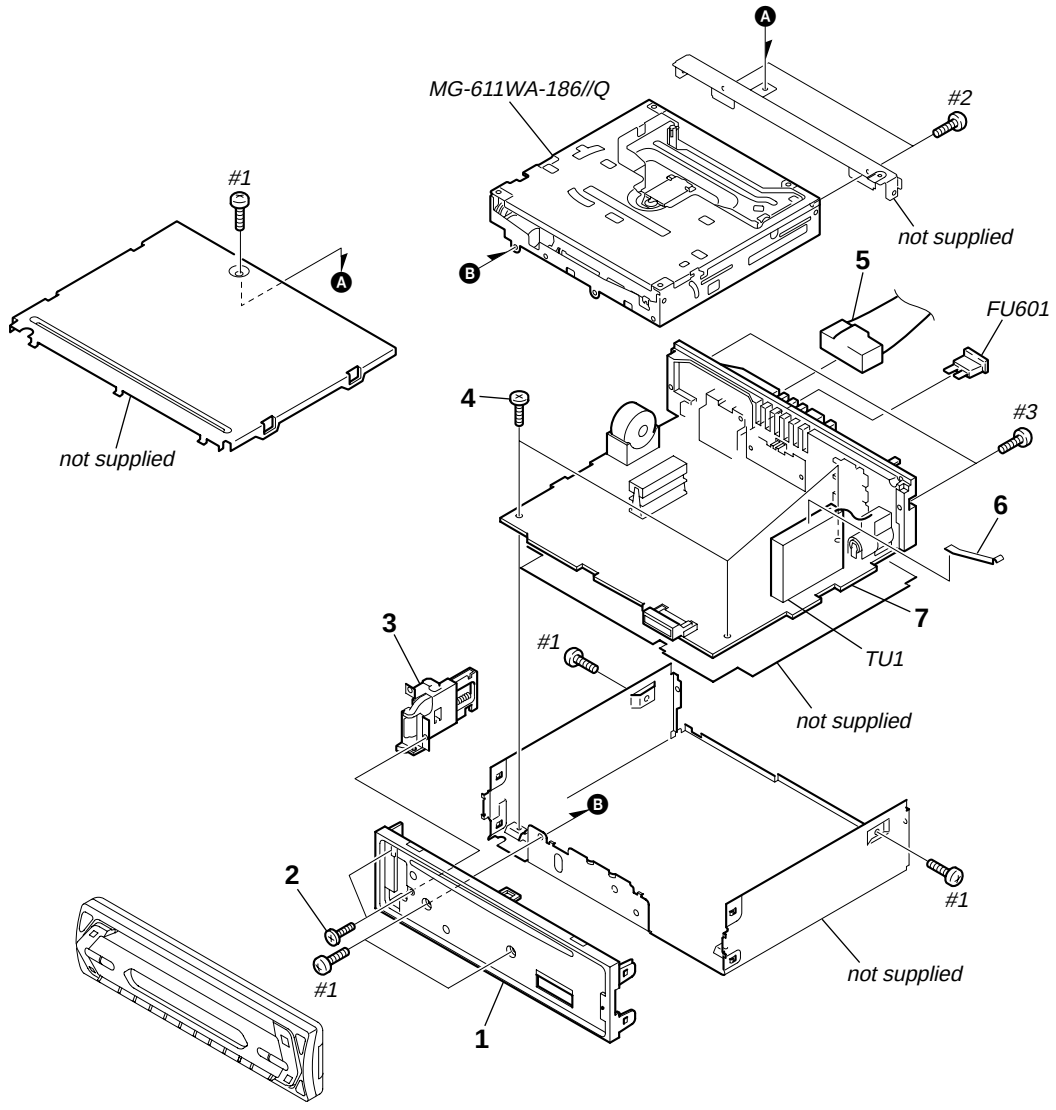
SECTION 4
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  CH : Chinese model
  MX : Mexican model
  EA : Saudi Arabia model
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

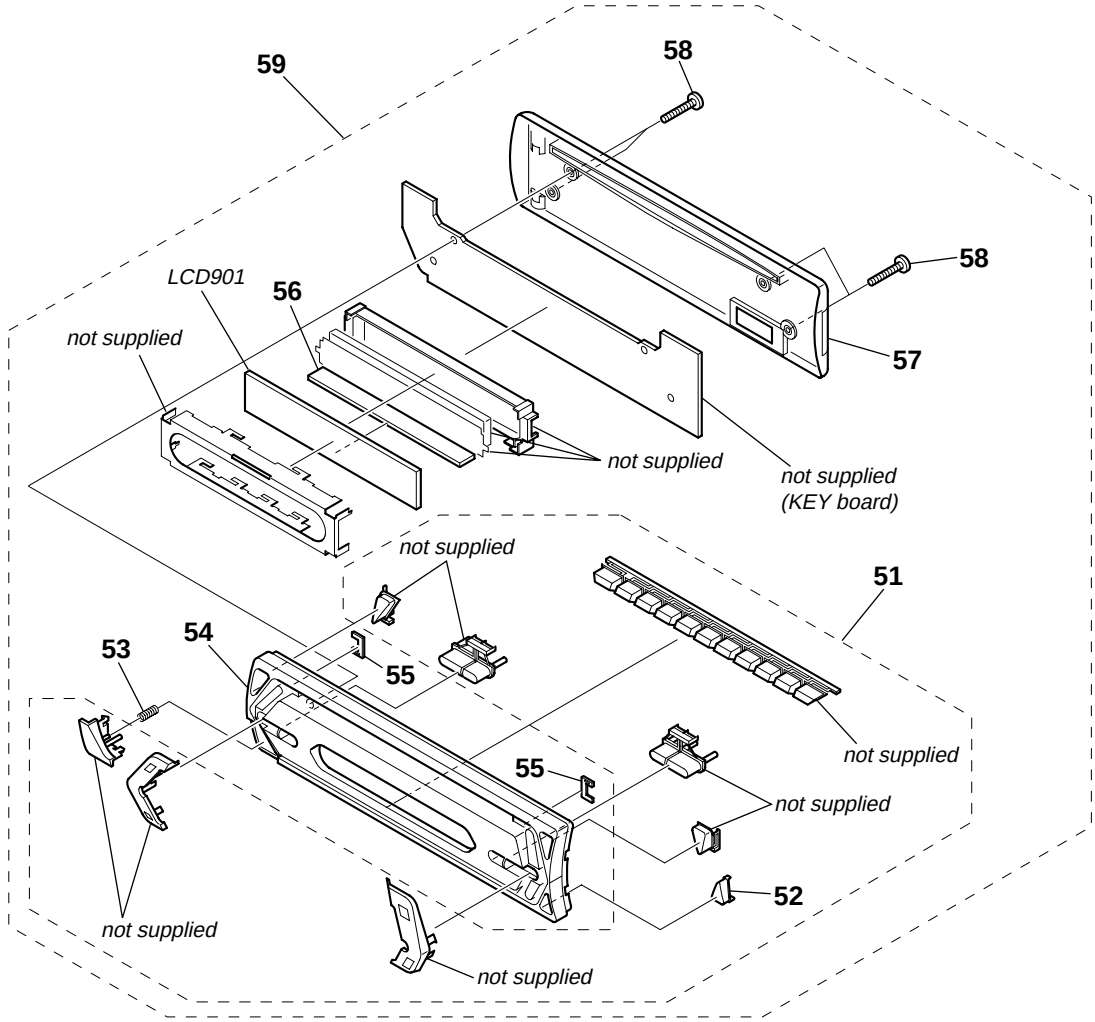
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2059-591-1	PANEL (HEX) ASSY, SUB	
2	3-042-244-11	SCREW (T)	
3	X-3383-739-1	LOCK ASSY (S)	
4	2-050-124-01	SCREW +BTT 2.6X5	
5	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	(EXCEPT AEP,UK)
5	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)
6	2-021-848-01	SHEET (TU), GROUND	
7	A-1144-597-A	MAIN BOARD, COMPLETE (AEP,UK)	
7	A-1144-669-A	MAIN BOARD, COMPLETE (S22S:E,CH)	
7	A-1157-457-A	MAIN BOARD, COMPLETE (S22:E,MX)	
7	A-1159-238-A	MAIN BOARD, COMPLETE (EA)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-B	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	

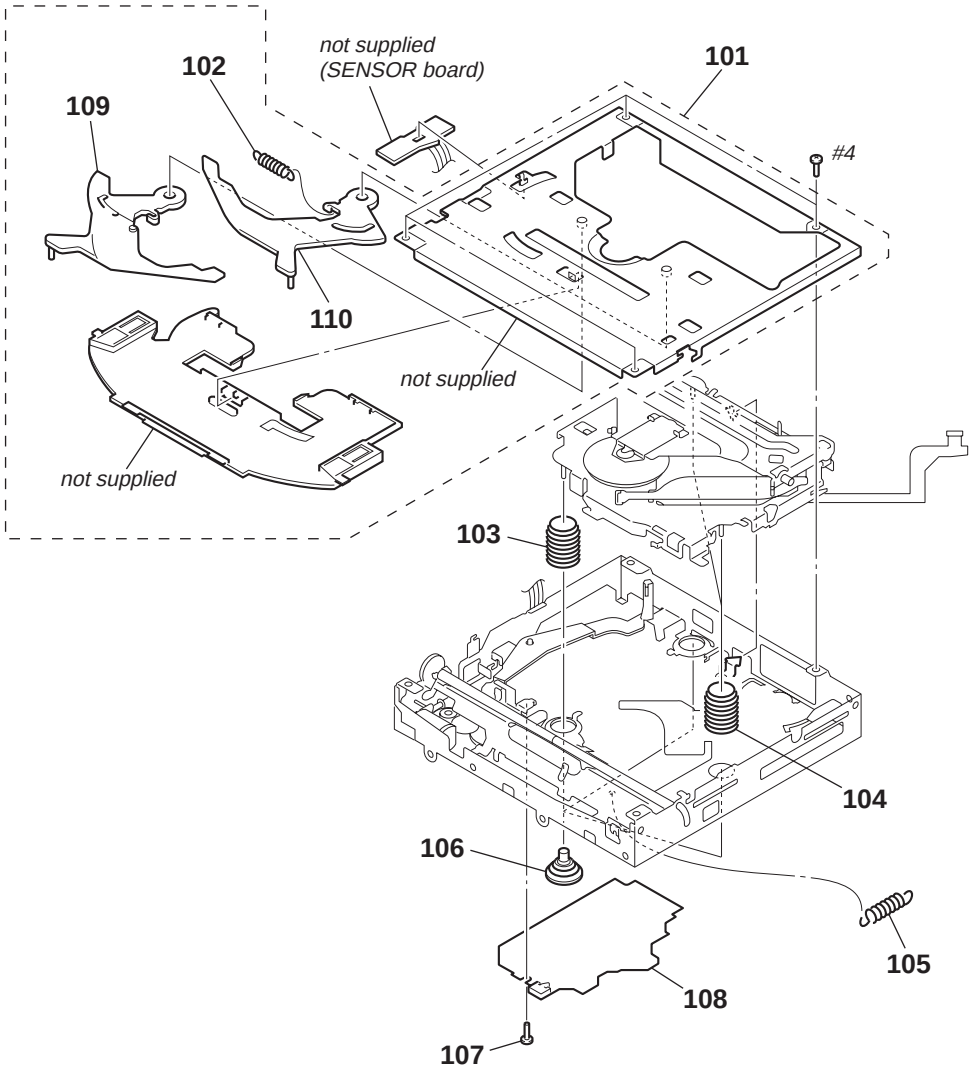
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-2103-084-1	BUTTON ASSY (S) (AEP,UK)	
51	X-2103-085-1	BUTTON ASSY (S) (S22S:E,CH,EA)	
51	X-2103-087-1	BUTTON ASSY (S) (S22:E,MX)	
52	2-633-258-32	FILTER (IR) (S22:AEP,UK/S22S)	
52	2-633-258-41	FILTER (IR) (S22:E,MX)	
53	2-633-260-01	SPRING (RELEASE)	
54	X-2108-201-1	PANEL (SV) ASSY, FRONT (AEP,UK)	
54	X-2108-202-1	PANEL (SV) ASSY, FRONT (S22S:E,CH,EA)	
54	X-2108-207-1	PANEL (SV) ASSY, FRONT (S22:E,MX)	
55	2-633-259-01	PLATE (CD), LIGHT GUIDE	

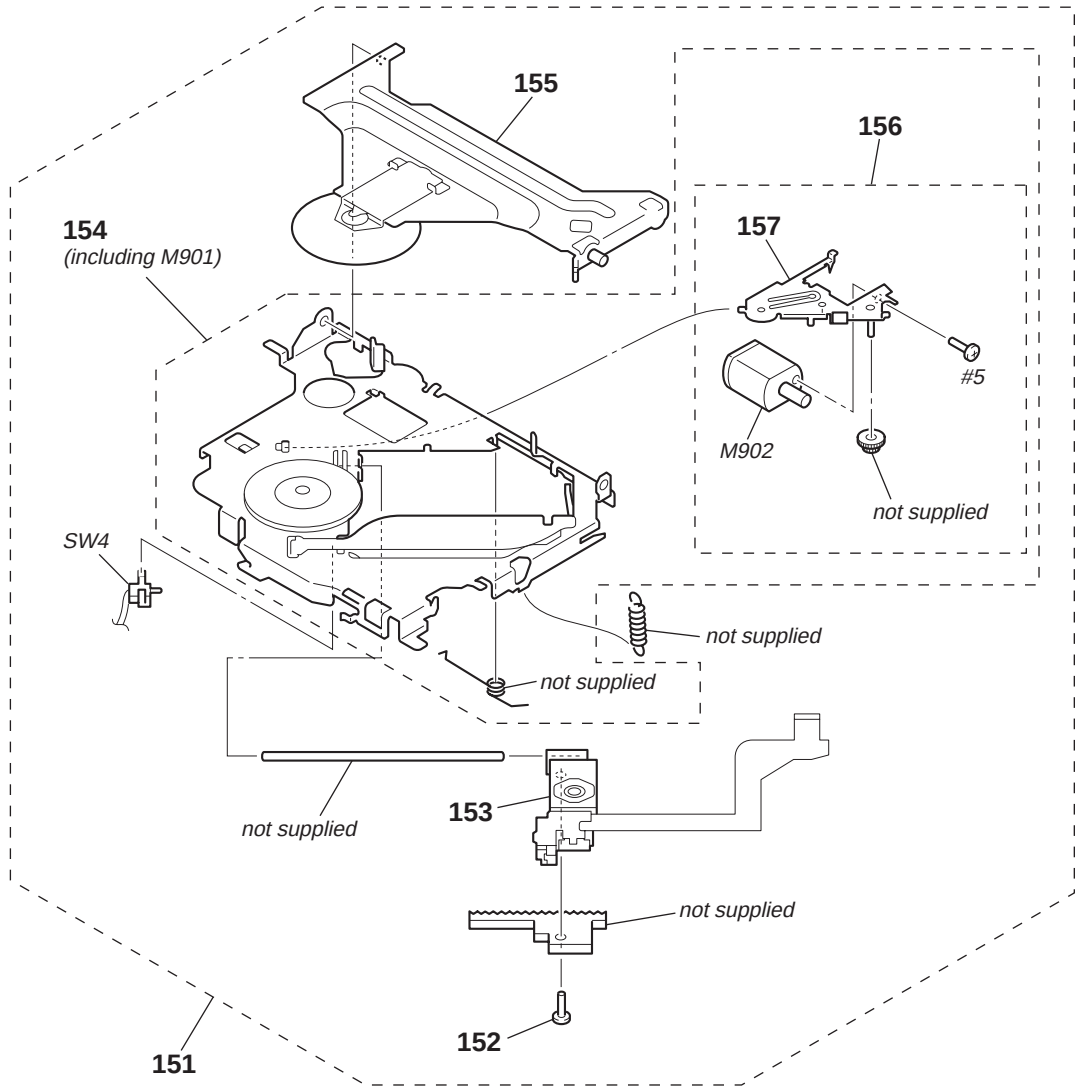
Ref. No.	Part No.	Description	Remark
56	1-780-199-11	CONDUCTIVE BOARD, CONNECTION	
57	2-633-243-02	PANEL, FRONT BACK	
58	3-250-543-21	SCREW (+B P-TITE M2)	
59	A-1144-603-A	PANEL OVERALL ASSY, FRONT (AEP,UK)	
59	A-1144-672-A	PANEL OVERALL ASSY, FRONT (S22S)	
59	A-1156-739-A	PANEL OVERALL ASSY, FRONT (S22:E)	
59	A-1156-740-A	PANEL OVERALL ASSY, FRONT (MX)	
LCD901	1-805-728-21	DISPLAY PANEL, LIQUID CRYSTAL (S22)	
LCD901	1-805-765-11	DISPLAY PANEL, LIQUID CRYSTAL (S22S)	

4-3. CD MECHANISM SECTION (1) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
101	A-3372-444-B	CHASSIS (T) SUB ASSY	
102	3-253-729-11	SPRING (LR), TENSION COIL	
103	3-257-892-12	SPRING (DAMPER), COIL (GREEN)	
104	3-257-892-01	SPRING (DAMPER), COIL (NATURAL)	
105	2-345-767-11	SPRING (KF60), TENSION	
106	3-259-033-01	DAMPER (S)	
107	2-587-505-01	SCREW	
108	A-1132-412-A	SERVO BOARD, COMPLETE	
* 109	X-2055-247-1	LEVER (LN) ASSY	
* 110	X-2055-248-1	LEVER (RN) ASSY	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

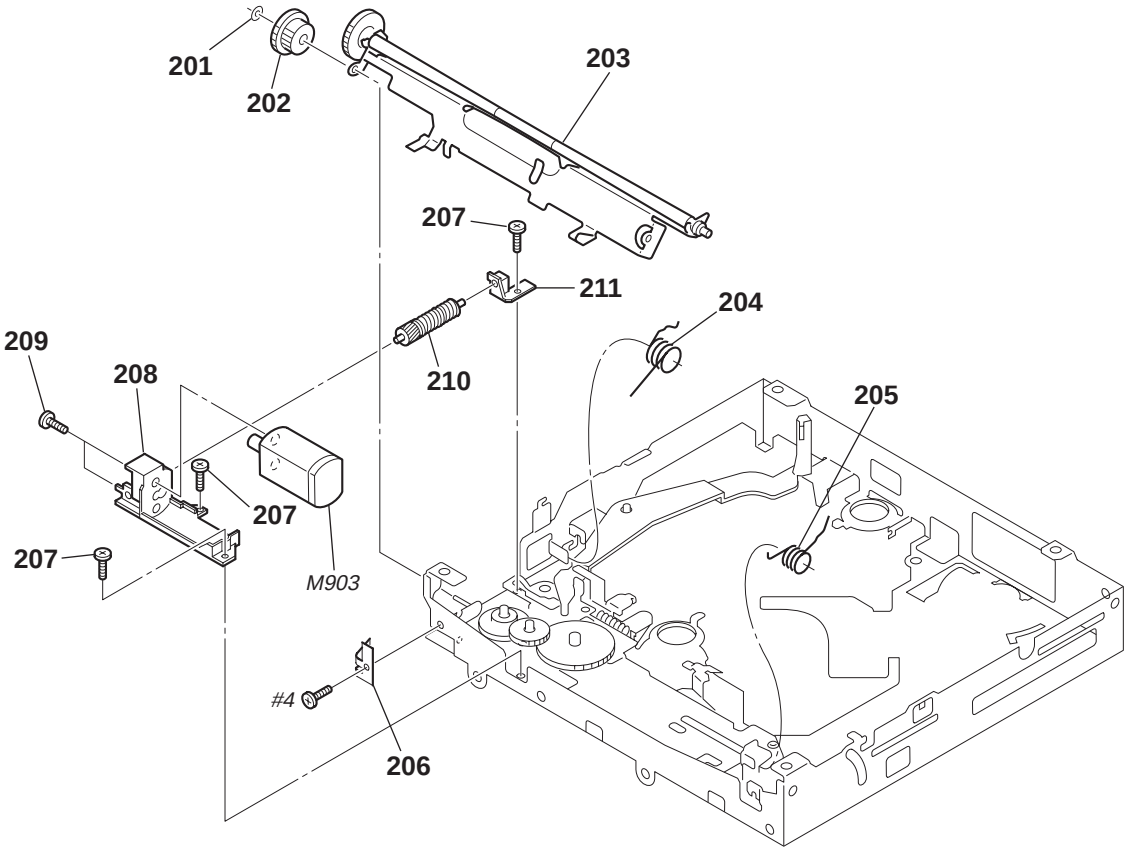
4-4. CD MECHANISM SECTION (2) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
151	A-1075-644-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3372-449-A	ARM SUB ASSY, CHUCKING	

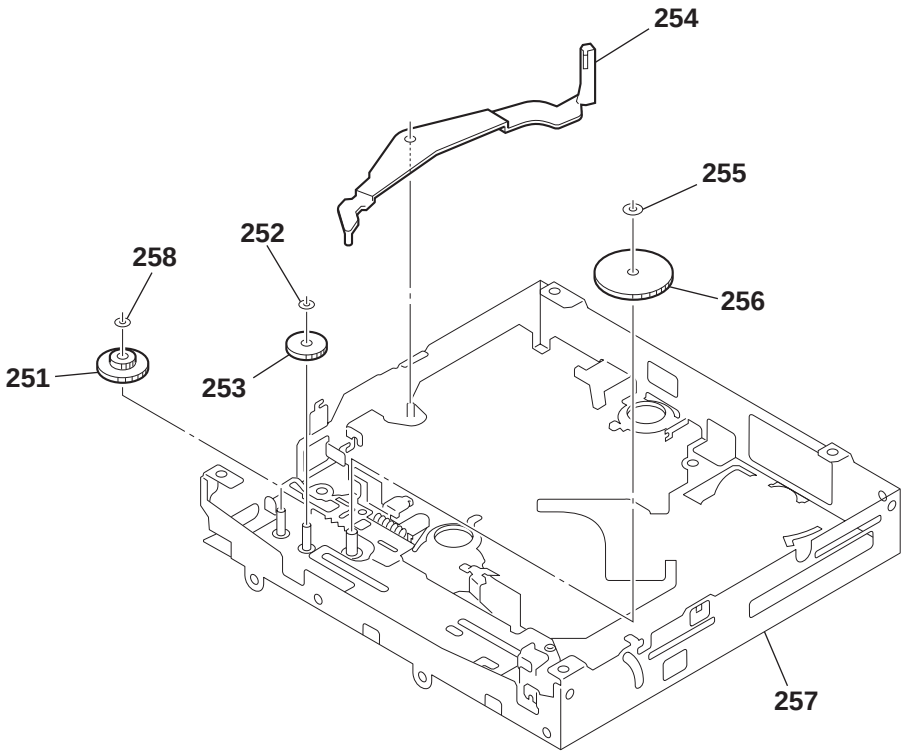
Ref. No.	Part No.	Description	Remark
156	A-3372-446-A	LEVER (SL) SUB ASSY	
157	X-3384-090-3	LEVER (SL) ASSY	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-32	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

4-5. CD MECHANISM SECTION (3) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
201	3-348-993-01	WASHER	
202	2-186-699-01	GEAR (RA1)	
203	A-1075-641-B	ARM ASSY, ROLLER	
204	2-635-295-01	SPRING (RAL-B)	
205	2-635-296-01	SPRING (RAR-B)	
206	3-259-469-12	SPRING (LE), LEAF	
207	2-134-636-21	SCREW (M1.7X2.5)	
208	2-186-696-02	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-636-A	GEAR (LE) ASSY	
211	2-186-697-01	BEARING (LEB-N)	
M903	A-1166-300-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4) (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
251	2-186-700-01	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-12	GEAR (LE1)	
254	3-253-755-31	LEVER (D)	

Ref. No.	Part No.	Description	Remark
255	2-630-962-01	WASHER (SLIT)	
* 256	2-590-545-01	GEAR (LE2-M)	
257	A-1075-640-B	CHASSIS (M) BLOCK ASSY	
258	3-348-993-01	WASHER	

KEY (AEP,UK)

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH
- Abbreviation
  MX : Mexican model
  CH : Chinese model
  EA : Saudi Arabia model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD (AEP,UK)			
		**********			
	1-780-199-11	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C981	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C982	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C985	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C986	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
		< CONNECTOR >			
CN901	1-794-312-11	PIN, CONNECTOR 12P			
		< DIODE >			
D901	6-500-886-01	DIODE RSA6.1ENTR			
D902	8-719-083-66	DIODE UDZSTE-1718B			
D981	8-719-069-54	DIODE UDZSTE-175.1B			
D982	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC901	6-707-063-01	IC LC75826WH-US-E			
IC971	6-600-163-01	IC RS-770 (IR)			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-805-728-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< LED >			
LED901	8-719-053-09	LED SML-310VTT86 (⏏)			
LED902	8-719-053-09	LED SML-310VTT86 (OFF)			
LED903	8-719-053-09	LED SML-310VTT86 (SOURCE)			
LED905	8-719-053-09	LED SML-310VTT86 (SEL)			
LED907	8-719-053-09	LED SML-310VTT86 (MODE)			
LED908	8-719-053-09	LED SML-310VTT86 (ATT)			
LED909	8-719-053-09	LED SML-310VTT86 (EQ3)			
LED912	8-719-053-09	LED SML-310VTT86 (AF/TA)			
LED913	8-719-053-09	LED SML-310VTT86 (PTY)			
LED914	8-719-053-09	LED SML-310VTT86 (6/PAUSE)			
LED915	8-719-053-09	LED SML-310VTT86 (5)			
LED916	8-719-053-09	LED SML-310VTT86 (4/SHUF)			
LED917	8-719-053-09	LED SML-310VTT86 (3/REP)			
LED918	8-719-053-09	LED SML-310VTT86 (2/GROUP +)			
LED919	8-719-053-09	LED SML-310VTT86 (1/GROUP –)			
LED920	8-719-053-09	LED SML-310VTT86 (SENS/BTM)			
LED921	8-719-053-09	LED SML-310VTT86 (DSPL/DIM)			
LED931	1-216-174-00	RES-CHIP	100	5%	1/8W
LED932	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT)			
LED941	8-719-053-09	LED SML-310VTT86 (▶▶I ▶▶)			
LED942	8-719-053-09	LED SML-310VTT86 (◀◀ I◀◀)			
LED951	8-719-053-09	LED SML-310VTT86 (DISC-R ILLUMI)			
LED952	8-719-053-09	LED SML-310VTT86 (DISC-L ILLUMI)			
		< SWITCH >			
LSW904	1-786-800-11	SWITCH, TACTILE (WITH LED) (– (VOL))			
LSW906	1-786-800-11	SWITCH, TACTILE (WITH LED) (+ (VOL))			
LSW910	1-786-800-11	SWITCH, TACTILE (WITH LED) (SEEK +/▶▶I ▶▶)			
LSW911	1-786-800-11	SWITCH, TACTILE (WITH LED) (SEEK –/◀◀ I◀◀)			
		< TRANSISTOR >			
Q921	8-729-027-58	TRANSISTOR DTC143ZKA-T146			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R907	1-216-819-11	METAL CHIP	680	5%	1/10W
R908	1-216-819-11	METAL CHIP	680	5%	1/10W
R909	1-216-819-11	METAL CHIP	680	5%	1/10W
R910	1-216-821-11	METAL CHIP	1K	5%	1/10W
R911	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R912	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R913	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R914	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R915	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R916	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R917	1-216-833-11	METAL CHIP	10K	5%	1/10W
R918	1-216-835-11	METAL CHIP	15K	5%	1/10W
R919	1-216-837-11	METAL CHIP	22K	5%	1/10W
R921	1-216-813-11	METAL CHIP	220	5%	1/10W
R922	1-216-811-11	METAL CHIP	150	5%	1/10W
R925	1-216-809-11	METAL CHIP	100	5%	1/10W

KEY (AEP,UK) **KEY (EXCEPT AEP,UK)**

Ref. No.	Part No.	Description			Remark
R926	1-216-807-11	METAL CHIP	68	5%	1/10W
R929	1-216-809-11	METAL CHIP	100	5%	1/10W
R930	1-216-807-11	METAL CHIP	68	5%	1/10W
R933	1-216-811-11	METAL CHIP	150	5%	1/10W
R935	1-216-809-11	METAL CHIP	100	5%	1/10W
R936	1-216-807-11	METAL CHIP	68	5%	1/10W
R939	1-216-809-11	METAL CHIP	100	5%	1/10W
R940	1-216-807-11	METAL CHIP	68	5%	1/10W
R943	1-216-809-11	METAL CHIP	100	5%	1/10W
R944	1-216-807-11	METAL CHIP	68	5%	1/10W
R947	1-216-809-11	METAL CHIP	100	5%	1/10W
R948	1-216-807-11	METAL CHIP	68	5%	1/10W
R951	1-216-809-11	METAL CHIP	100	5%	1/10W
R952	1-216-807-11	METAL CHIP	68	5%	1/10W
R955	1-216-813-11	METAL CHIP	220	5%	1/10W
R956	1-216-811-11	METAL CHIP	150	5%	1/10W
R957	1-216-811-11	METAL CHIP	150	5%	1/10W
R961	1-216-812-11	METAL CHIP	180	5%	1/10W
R962	1-216-809-11	METAL CHIP	100	5%	1/10W
R963	1-216-813-11	METAL CHIP	220	5%	1/10W
R967	1-216-821-11	METAL CHIP	1K	5%	1/10W
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R973	1-216-864-11	SHORT CHIP	0		
R974	1-216-864-11	SHORT CHIP	0		
R976	1-216-864-11	SHORT CHIP	0		
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-809-11	METAL CHIP	100	5%	1/10W
R979	1-216-809-11	METAL CHIP	100	5%	1/10W
R981	1-216-811-11	METAL CHIP	150	5%	1/10W
R982	1-216-811-11	METAL CHIP	150	5%	1/10W
R983	1-216-864-11	SHORT CHIP	0		
R984	1-216-821-11	METAL CHIP	1K	5%	1/10W
R985	1-216-821-11	METAL CHIP	1K	5%	1/10W
R986	1-216-821-11	METAL CHIP	1K	5%	1/10W
R987	1-216-857-11	METAL CHIP	1M	5%	1/10W
		< SWITCH >			
S901	1-786-653-21	SWITCH, TACTILE (⏏)			
S902	1-786-653-21	SWITCH, TACTILE (OFF)			
S903	1-786-653-21	SWITCH, TACTILE (SOURCE)			
S905	1-786-653-21	SWITCH, TACTILE (SEL)			
S907	1-786-653-21	SWITCH, TACTILE (MODE)			
S908	1-786-653-21	SWITCH, TACTILE (ATT)			
S909	1-786-653-21	SWITCH, TACTILE (EQ3)			
S912	1-786-653-21	SWITCH, TACTILE (AF/TA)			
S913	1-786-653-21	SWITCH, TACTILE (PTY)			
S914	1-786-653-21	SWITCH, TACTILE (6/PAUSE)			
S915	1-786-653-21	SWITCH, TACTILE (5)			
S916	1-786-653-21	SWITCH, TACTILE (4/SHUF)			
S917	1-786-653-21	SWITCH, TACTILE (3/REP)			
S918	1-786-653-21	SWITCH, TACTILE (2/GROUP +)			
S919	1-786-653-21	SWITCH, TACTILE (1/GROUP –)			
S920	1-786-653-21	SWITCH, TACTILE (SENS/BTM)			
S921	1-786-653-21	SWITCH, TACTILE (DSPL/DIM)			

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Ref. No.	Part No.	Description			Remark
		KEY BOARD (EXCEPT AEP,UK)			
		**********			
	1-780-199-11	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C981	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C982	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C985	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C986	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
		< CONNECTOR >			
CN901	1-794-312-11	PIN, CONNECTOR 12P			
		< DIODE >			
D901	6-500-886-01	DIODE RSA6.1ENTR			
D902	8-719-056-93	DIODE UDZ-TE-17-18B			
D981	8-719-976-99	DIODE DTZ5.1B			
D982	8-719-081-97	DIODE MMDL914T1			
		< IC >			
IC901	6-707-063-01	IC LC75826WH-US-E			
IC971	6-600-163-01	IC RS-770 (IR)			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-805-728-21	DISPLAY PANEL, LIQUID CRYSTAL (S22:E,MX)			
LCD901	1-805-765-11	DISPLAY PANEL, LIQUID CRYSTAL (S22S)			
		< LED >			
LED901	8-719-053-09	LED SML-310VTT86 (⏏)			
LED902	8-719-053-09	LED SML-310VTT86 (OFF)			
LED903	8-719-053-09	LED SML-310VTT86 (SOURCE)			
LED905	8-719-053-09	LED SML-310VTT86 (SEL)			
LED907	8-719-053-09	LED SML-310VTT86 (MODE)			
LED908	8-719-053-09	LED SML-310VTT86 (ATT)			
LED909	8-719-053-09	LED SML-310VTT86 (EQ3)			
LED913	8-719-053-09	LED SML-310VTT86 (BTM)			
LED914	8-719-053-09	LED SML-310VTT86 (6/PAUSE)			
LED915	8-719-053-09	LED SML-310VTT86 (5)			
LED916	8-719-053-09	LED SML-310VTT86 (4/SHUF)			
LED917	8-719-053-09	LED SML-310VTT86 (3/REP)			
LED918	8-719-053-09	LED SML-310VTT86 (2/GROUP +)			
LED919	8-719-053-09	LED SML-310VTT86 (1/GROUP –)			
LED920	8-719-053-09	LED SML-310VTT86 (SENS)			
LED921	8-719-053-09	LED SML-310VTT86 (DSPL/DIM)			
LED931	1-216-174-00	RES-CHIP	100	5%	1/8W
LED932	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT)			
LED941	8-719-053-09	LED SML-310VTT86 (▶▶I ▶▶)			
LED942	8-719-053-09	LED SML-310VTT86 (◀◀ I◀◀)			
LED951	8-719-053-09	LED SML-310VTT86 (DISC-R ILLUMI)			
LED952	8-719-053-09	LED SML-310VTT86 (DISC-L ILLUMI)			
		< SWITCH >			
LSW904	1-786-800-11	SWITCH, TACTILE (WITH LED) (– (VOL))			

KEY (EXCEPT AEP,UK) **MAIN**

Ref. No.	Part No.	Description			Remark
LSW906	1-786-800-11	SWITCH, TACTILE (WITH LED) (+ (VOL))			
LSW910	1-786-800-11	SWITCH, TACTILE (WITH LED) (SEEK +/▶▶I ▶▶)			
LSW911	1-786-800-11	SWITCH, TACTILE (WITH LED) (SEEK –/◀◀ I◀◀)			
		< TRANSISTOR >			
Q921	6-551-244-01	TRANSISTOR MUN2233T1G			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R907	1-216-819-11	METAL CHIP	680	5%	1/10W
R908	1-216-819-11	METAL CHIP	680	5%	1/10W
R909	1-216-819-11	METAL CHIP	680	5%	1/10W
R910	1-216-821-11	METAL CHIP	1K	5%	1/10W
R911	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R912	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R913	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R914	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R915	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R916	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R917	1-216-833-11	METAL CHIP	10K	5%	1/10W
R918	1-216-835-11	METAL CHIP	15K	5%	1/10W
R919	1-216-837-11	METAL CHIP	22K	5%	1/10W
R921	1-216-813-11	METAL CHIP	220	5%	1/10W
R922	1-216-811-11	METAL CHIP	150	5%	1/10W
R925	1-216-809-11	METAL CHIP	100	5%	1/10W
R926	1-216-807-11	METAL CHIP	68	5%	1/10W
R929	1-216-809-11	METAL CHIP	100	5%	1/10W
R930	1-216-807-11	METAL CHIP	68	5%	1/10W
R933	1-216-811-11	METAL CHIP	150	5%	1/10W
R935	1-216-809-11	METAL CHIP	100	5%	1/10W
R936	1-216-807-11	METAL CHIP	68	5%	1/10W
R939	1-216-809-11	METAL CHIP	100	5%	1/10W
R940	1-216-809-11	METAL CHIP	100	5%	1/10W
R943	1-216-809-11	METAL CHIP	100	5%	1/10W
R944	1-216-807-11	METAL CHIP	68	5%	1/10W
R947	1-216-809-11	METAL CHIP	100	5%	1/10W
R948	1-216-807-11	METAL CHIP	68	5%	1/10W
R951	1-216-809-11	METAL CHIP	100	5%	1/10W
R952	1-216-807-11	METAL CHIP	68	5%	1/10W
R955	1-216-813-11	METAL CHIP	220	5%	1/10W
R956	1-216-811-11	METAL CHIP	150	5%	1/10W
R957	1-216-811-11	METAL CHIP	150	5%	1/10W
R961	1-216-812-11	METAL CHIP	180	5%	1/10W
R962	1-216-809-11	METAL CHIP	100	5%	1/10W
R963	1-216-813-11	METAL CHIP	220	5%	1/10W
R967	1-216-821-11	METAL CHIP	1K	5%	1/10W
R968	1-216-808-11	METAL CHIP	82	5%	1/10W
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R973	1-216-864-11	SHORT CHIP	0		
R974	1-216-864-11	SHORT CHIP	0		
R976	1-216-864-11	SHORT CHIP	0		
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-809-11	METAL CHIP	100	5%	1/10W
R979	1-216-809-11	METAL CHIP	100	5%	1/10W
R981	1-216-811-11	METAL CHIP	150	5%	1/10W
R982	1-216-811-11	METAL CHIP	150	5%	1/10W
R983	1-216-864-11	SHORT CHIP	0		
R984	1-216-821-11	METAL CHIP	1K	5%	1/10W
R985	1-216-821-11	METAL CHIP	1K	5%	1/10W
R986	1-216-821-11	METAL CHIP	1K	5%	1/10W
R987	1-216-857-11	METAL CHIP	1M	5%	1/10W
		< SWITCH >			
S901	1-786-653-11	SWITCH, TACTILE (⏏)			
S902	1-786-653-11	SWITCH, TACTILE (OFF)			
S903	1-786-653-11	SWITCH, TACTILE (SOURCE)			
S905	1-786-653-11	SWITCH, TACTILE (SEL)			
S907	1-786-653-11	SWITCH, TACTILE (MODE)			
S908	1-786-653-11	SWITCH, TACTILE (ATT)			
S909	1-786-653-11	SWITCH, TACTILE (EQ3)			
S913	1-786-653-11	SWITCH, TACTILE (BTM)			
S914	1-786-653-11	SWITCH, TACTILE (6/PAUSE)			
S915	1-786-653-11	SWITCH, TACTILE (5)			
S916	1-786-653-11	SWITCH, TACTILE (4/SHUF)			
S917	1-786-653-11	SWITCH, TACTILE (3/REP)			
S918	1-786-653-11	SWITCH, TACTILE (2/GROUP +)			
S919	1-786-653-11	SWITCH, TACTILE (1/GROUP –)			
S920	1-786-653-11	SWITCH, TACTILE (SENS)			
S921	1-786-653-11	SWITCH, TACTILE (DSPL/DIM)			
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	A-1144-597-A	MAIN BOARD, COMPLETE (AEP,UK)			
	A-1144-669-A	MAIN BOARD, COMPLETE (S22S:E,CH)			
	A-1157-457-A	MAIN BOARD, COMPLETE (S22:E,MX)			
	A-1159-238-A	MAIN BOARD, COMPLETE (EA)			
		**********			
	7-621-284-40	SCREW +P 2.6X10			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C1	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK)
C2	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK)
C3	1-126-963-11	ELECT	4.7uF	20%	50V (AEP,UK)
C4	1-126-947-11	ELECT	47uF	20%	35V
C5	1-126-947-11	ELECT	47uF	20%	35V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C11	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C12	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C51	1-126-947-11	ELECT	47uF	20%	35V (AEP,UK)
C53	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP,UK)
C54	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP,UK)

Ref. No.	Part No.	Description			Remark
C55	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP,UK)
C56	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP,UK)
C57	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP,UK)
C58	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP,UK)
C59	1-162-916-11	CERAMIC CHIP	12PF	5%	50V (AEP,UK)
C60	1-162-916-11	CERAMIC CHIP	12PF	5%	50V (AEP,UK)
C62	1-162-959-11	CERAMIC CHIP	330PF	5%	50V (AEP,UK)
C301	1-128-551-11	ELECT	22uF	20%	63V
C302	1-126-934-11	ELECT	220uF	20%	16V
C305	1-104-665-11	ELECT	100uF	20%	25V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C309	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C310	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C401	1-126-964-11	ELECT	10uF	20%	50V
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-126-960-11	ELECT	1uF	20%	50V
C407	1-126-960-11	ELECT	1uF	20%	50V
C412	1-126-947-11	ELECT	47uF	20%	35V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-126-791-11	ELECT	10uF	20%	35V
C432	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C433	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C441	1-126-791-11	ELECT	10uF	20%	35V
C442	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C443	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C451	1-126-791-11	ELECT	10uF	20%	35V
C452	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C454	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C461	1-126-791-11	ELECT	10uF	20%	35V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C464	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C471	1-126-791-11	ELECT	10uF	20%	35V
C474	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C479	1-126-947-11	ELECT	47uF	20%	35V
C481	1-126-791-11	ELECT	10uF	20%	35V
C484	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C503	1-104-665-11	ELECT	100uF	20%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C508	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C509	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-104-665-11	ELECT	100uF	20%	25V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK)
C516	1-216-845-11	METAL CHIP	100K	5%	1/10W (EXCEPT AEP,UK)
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C531	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C550	1-216-864-11	SHORT CHIP	0 (AEP,UK)		
C562	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C601	1-131-868-81	ELECT	3300uF	20%	16V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C609	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C617	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C622	1-126-916-11	ELECT	1000uF	20%	6.3V
C623	1-126-916-11	ELECT	1000uF	20%	6.3V
C631	1-126-960-11	ELECT	1uF	20%	50V
C750	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C751	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C752	1-126-947-11	ELECT	47uF	20%	35V
C753	1-128-551-11	ELECT	22uF	20%	63V
C754	1-126-961-11	ELECT	2.2uF	20%	50V
C755	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C758	1-126-964-11	ELECT	10uF	20%	50V
C759	1-126-964-11	ELECT	10uF	20%	50V
C760	1-104-665-11	ELECT	100uF	20%	25V
C761	1-126-964-11	ELECT	10uF	20%	50V
C763	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C764	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C765	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C769	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C770	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C771	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C774	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C775	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C776	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V

< CONNECTOR >

CN601	1-774-701-21	PIN, CONNECTOR 16P
CN701	1-794-311-21	PLUG, CONNECTOR 12P
CNP301	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P

< DIODE >

D1	8-719-036-94	DIODE RD5.6SB-T1 (EXCEPT AEP,UK)
D1	8-719-069-55	DIODE UDZSTE-175.6B (AEP,UK)
D479	8-719-081-97	DIODE MMDL914T1
D502	6-500-137-01	DIODE BAT54HT1
D503	8-719-081-97	DIODE MMDL914T1
D510	6-501-013-01	DIODE BAT54ALT1G
D511	6-501-051-01	DIODE BAT54CLT1G
D512	6-501-051-01	DIODE BAT54CLT1G
D580	8-719-056-83	DIODE UDZ-TE-17-6.8B (EXCEPT AEP,UK)
D580	8-719-056-84	DIODE UDZ-TE-17-7.5B (AEP,UK)
D581	8-719-056-93	DIODE UDZ-TE-17-18B (EXCEPT AEP,UK)
D581	8-719-083-66	DIODE UDZSTE-1718B (AEP,UK)
D601	8-719-049-38	DIODE 1N5404TU
D609	8-719-056-83	DIODE UDZ-TE-17-6.8B (EXCEPT AEP,UK)
D609	8-719-978-33	DIODE DTZ-TT11-6.8B (AEP,UK)

MAIN

Ref. No.	Part No.	Description	Remark
D617	8-719-056-93	DIODE UDZ-TE-17-18B (EXCEPT AEP,UK)	
D617	8-719-083-66	DIODE UDZSTE-1718B (AEP,UK)	
D651	8-719-083-66	DIODE UDZSTE-1718B (AEP,UK)	
D701	6-500-886-01	DIODE RSA6.1ENTR	
D702	6-500-886-01	DIODE RSA6.1ENTR	
D719	8-719-056-93	DIODE UDZ-TE-17-18B (EXCEPT AEP,UK)	
D719	8-719-083-66	DIODE UDZSTE-1718B (AEP,UK)	
D751	6-501-362-01	DIODE 1A4-TA26	
D752	6-501-362-01	DIODE 1A4-TA26	
D753	6-501-362-01	DIODE 1A4-TA26	
D754	6-501-362-01	DIODE 1A4-TA26	
D755	6-501-362-01	DIODE 1A4-TA26	
D756	6-501-362-01	DIODE 1A4-TA26	
D757	6-501-362-01	DIODE 1A4-TA26	
D758	6-501-362-01	DIODE 1A4-TA26	
D759	6-501-362-01	DIODE 1A4-TA26	
D760	6-501-362-01	DIODE 1A4-TA26	
D761	6-501-362-01	DIODE 1A4-TA26	
D762	6-501-362-01	DIODE 1A4-TA26	
D763	8-719-081-97	DIODE MMDL914T1	
D764	8-719-081-97	DIODE MMDL914T1	
D790	8-719-069-56	DIODE UDZSTE-176.2B	
		< FERRITE BEAD >	
FB1	1-469-844-11	INDUCTOR 2.2uH	
FB302	1-469-876-11	INDUCTOR, FERRITE BEAD	
FB303	1-469-876-11	INDUCTOR, FERRITE BEAD	
FB304	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB305	1-216-295-11	SHORT CHIP 0	
FB307	1-469-876-11	INDUCTOR, FERRITE BEAD	
FB308	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB309	1-216-864-11	SHORT CHIP 0	
FB310	1-216-864-11	SHORT CHIP 0	
FB501	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB603	1-216-295-11	SHORT CHIP 0	
FB604	1-216-295-11	SHORT CHIP 0	
FB605	1-216-864-11	SHORT CHIP 0	
FB606	1-414-595-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC51	6-803-747-01	IC TDA7333013TR (AEP,UK)	
IC401	6-705-372-01	IC BD3808FS-FE2	
IC501	6-806-060-01	IC MB90487APF-G-159E1	
IC602	8-759-659-13	IC PST3428UL	
IC750	6-705-360-02	IC TDA8588BJ/N2/R1 (S22:E,MX)	
IC750	6-705-363-11	IC TDA8589BJ/N2/R1/M5 (S22:AEP,UK/S22S)	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J330	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)	
		< JUMPER RESISTOR >	
JC1	1-216-864-11	SHORT CHIP 0	
JC5	1-216-864-11	SHORT CHIP 0	
JC12	1-216-864-11	SHORT CHIP 0	
JC401	1-216-864-11	SHORT CHIP 0	
JC445	1-216-296-11	SHORT CHIP 0	
JC446	1-216-864-11	SHORT CHIP 0	
JC501	1-216-296-11	SHORT CHIP 0	
JC503	1-216-296-11	SHORT CHIP 0	
JC504	1-216-864-11	SHORT CHIP 0	
JC505	1-216-296-11	SHORT CHIP 0	
JC506	1-216-864-11	SHORT CHIP 0	
JC511	1-216-296-11	SHORT CHIP 0	
JC527	1-216-821-11	METAL CHIP 1K 5% 1/10W	
JC533	1-216-864-11	SHORT CHIP 0	
JC681	1-216-864-11	SHORT CHIP 0	
JC753	1-216-296-11	SHORT CHIP 0	
JC754	1-216-296-11	SHORT CHIP 0	
JC755	1-216-296-11	SHORT CHIP 0	
JC756	1-216-864-11	SHORT CHIP 0	
		< RESISTOR >	
JW52	1-249-425-11	CARBON 4.7K 5% 1/4W	
		< COIL >	
L1	1-469-844-11	INDUCTOR 2.2uH	
L51	1-216-295-11	SHORT CHIP 0 (AEP,UK)	
L301	1-216-295-11	SHORT CHIP 0	
L501	1-500-245-11	INDUCTOR, FERRITE BEAD	
L601	1-456-617-11	COIL, CHOKE	
		< TRANSISTOR >	
Q1	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q22	1-801-806-11	TRANSISTOR DTC144EKA (AEP,UK)	
Q51	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R (AEP,UK)	
Q431	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q441	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q451	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q461	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q471	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q478	8-729-421-19	TRANSISTOR UN2213 (EXCEPT AEP,UK)	
Q478	1-801-806-11	TRANSISTOR DTC144EKA (AEP,UK)	
Q479	8-729-424-08	TRANSISTOR UN2111 (EXCEPT AEP,UK)	
Q479	8-729-027-23	TRANSISTOR DTA114EKA-T146 (AEP,UK)	
Q481	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q580	8-729-421-22	TRANSISTOR UN2211 (EXCEPT AEP,UK)	
Q580	8-729-027-43	TRANSISTOR DTC114EKA-T146 (AEP,UK)	
Q581	8-729-421-19	TRANSISTOR UN2213 (EXCEPT AEP,UK)	
Q581	1-801-806-11	TRANSISTOR DTC144EKA (AEP,UK)	
Q582	8-729-010-25	TRANSISTOR MSD601-RT1 (EXCEPT AEP,UK)	
Q582	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R (AEP,UK)	
Q631	8-729-010-25	TRANSISTOR MSD601-RT1 (EXCEPT AEP,UK)	
Q631	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R (AEP,UK)	
Q651	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R (AEP,UK)	
Q664	8-729-424-08	TRANSISTOR UN2111 (EXCEPT AEP,UK)	
Q664	8-729-027-23	TRANSISTOR DTA114EKA-T146 (AEP,UK)	
		< RESISTOR >	
R1	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R2	1-414-595-11	INDUCTOR, FERRITE BEAD	
R3	1-414-595-11	INDUCTOR, FERRITE BEAD	
R4	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R5	1-216-843-11	METAL CHIP 68K 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R6	1-216-839-11	METAL CHIP	33K	5%	1/10W (AEP,UK)
R7	1-216-843-11	METAL CHIP	68K	5%	1/10W (AEP,UK)
R8	1-216-839-11	METAL CHIP	33K	5%	1/10W (AEP,UK)
R9	1-216-843-11	METAL CHIP	68K	5%	1/10W (AEP,UK)
R12	1-216-864-11	SHORT CHIP	0		
R13	1-216-864-11	SHORT CHIP	0		
R29	1-216-809-11	METAL CHIP	100	5%	1/10W (AEP,UK)
R51	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP,UK)
R52	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP,UK)
R53	1-414-595-11	INDUCTOR, FERRITE BEAD (AEP,UK)			
R54	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP,UK)
R55	1-216-864-11	SHORT CHIP	0 (AEP,UK)		
R56	1-414-595-11	INDUCTOR, FERRITE BEAD (AEP,UK)			
R57	1-414-595-11	INDUCTOR, FERRITE BEAD (AEP,UK)			
R58	1-414-595-11	INDUCTOR, FERRITE BEAD (AEP,UK)			
R59	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP,UK)
R60	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP,UK)
R61	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP,UK)
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W
R335	1-216-864-11	SHORT CHIP	0		
R401	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R405	1-218-881-11	METAL CHIP	27K	0.5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-833-11	METAL CHIP	10K	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R462	1-216-833-11	METAL CHIP	10K	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-833-11	METAL CHIP	10K	5%	1/10W
R479	1-216-805-11	METAL CHIP	47	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-833-11	METAL CHIP	10K	5%	1/10W
R501	1-216-864-11	SHORT CHIP	0		
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R505	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W (EXCEPT AEP,UK)
R508	1-216-864-11	SHORT CHIP	0		
R509	1-216-811-11	METAL CHIP	150	5%	1/10W
R510	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-809-11	METAL CHIP	100	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-864-11	SHORT CHIP	0		
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-809-11	METAL CHIP	100	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-833-11	METAL CHIP	10K	5%	1/10W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-833-11	METAL CHIP	10K	5%	1/10W
R536	1-216-845-11	METAL CHIP	100K	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W
R539	1-216-821-11	METAL CHIP	1K	5%	1/10W
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W
R542	1-216-821-11	METAL CHIP	1K	5%	1/10W
R543	1-216-821-11	METAL CHIP	1K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
R545	1-216-845-11	METAL CHIP	100K	5%	1/10W (E,MX,CH)
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W (E,MX,CH)
R547	1-216-864-11	SHORT CHIP	0		
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP,UK,EA)
R556	1-216-845-11	METAL CHIP	100K	5%	1/10W (EXCEPT AEP,UK)
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W (EXCEPT AEP,UK)
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R564	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP,UK)
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-216-845-11	METAL CHIP	100K	5%	1/10W
R568	1-216-821-11	METAL CHIP	1K	5%	1/10W (EXCEPT AEP,UK)
R570	1-216-817-11	METAL CHIP	470	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP,UK)
R575	1-216-845-11	METAL CHIP	100K	5%	1/10W
R578	1-216-821-11	METAL CHIP	1K	5%	1/10W
R582	1-216-821-11	METAL CHIP	1K	5%	1/10W
R583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R584	1-216-841-11	METAL CHIP	47K	5%	1/10W
R585	1-216-849-11	METAL CHIP	220K	5%	1/10W
R590	1-216-864-11	SHORT CHIP	0		

MAIN **SENSOR** **SERVO**

Ref. No.	Part No.	Description			Remark
R601	1-216-845-11	METAL CHIP	100K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-216-841-11	METAL CHIP	47K	5%	1/10W
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP,UK)
R652	1-216-841-11	METAL CHIP	47K	5%	1/10W (AEP,UK)
R653	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP,UK)
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP,UK)
R671	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-809-11	METAL CHIP	100	5%	1/10W (AEP,UK)
R672	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT AEP,UK)
R673	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R675	1-216-821-11	METAL CHIP	1K	5%	1/10W
R676	1-216-821-11	METAL CHIP	1K	5%	1/10W
R677	1-216-821-11	METAL CHIP	1K	5%	1/10W
R679	1-216-821-11	METAL CHIP	1K	5%	1/10W
R681	1-216-864-11	SHORT CHIP	0		
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R752	1-216-811-11	METAL CHIP	150	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S502	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT)			(E,MX,CH)
S702	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER UNIT >			
TU1	A-3220-961-B	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X51	1-813-532-11	VIBRATOR, CRYSTAL (8.664MHz) (AEP,UK)			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-1132-412-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C7	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C10	1-126-208-21	ELECT CHIP	47uF	20%	4V
C11	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remark
C12	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C13	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C14	1-104-609-11	ELECT CHIP	100uF	20%	4V
C15	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C17	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C22	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C25	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C26	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C29	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C30	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C31	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C32	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C33	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C39	1-126-208-21	ELECT CHIP	47uF	20%	4V
C40	1-126-395-11	ELECT CHIP	22uF	20%	16V
C41	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C44	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C46	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C47	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C48	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C50	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C54	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C55	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C56	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C58	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C60	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C62	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C66	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C67	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C68	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C69	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C70	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C71	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C72	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C132	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C133	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
		< CONNECTOR >			
CN1	1-691-380-61	CONNECTOR, FFC/FPC (ZIF) 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			

Ref. No.	Part No.	Description			Remark
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-708-729-01	IC TC94A70FG-002			
IC3	6-806-019-02	IC MB90486BPFV-G-177E1			
IC6	6-708-728-01	IC BH15LB1WG			
		< TRANSISTOR >			
Q2	6-551-120-01	TRANSISTOR 2SA2119K			
Q3	8-729-928-90	TRANSISTOR DTC114EE			
Q21	8-729-904-87	TRANSISTOR 2SB1197K-R			
		< RESISTOR >			
R1	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2	1-218-977-11	RES-CHIP	100K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-969-11	RES-CHIP	22K	5%	1/16W
R7	1-218-990-81	SHORT CHIP	0		
R8	1-218-965-11	RES-CHIP	10K	5%	1/16W
R9	1-218-965-11	RES-CHIP	10K	5%	1/16W
R10	1-218-990-81	SHORT CHIP	0		
R11	1-218-941-81	RES-CHIP	100	5%	1/16W
R12	1-218-969-11	RES-CHIP	22K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R14	1-218-929-11	RES-CHIP	10	5%	1/16W
R15	1-218-929-11	RES-CHIP	10	5%	1/16W
R16	1-218-953-11	RES-CHIP	1K	5%	1/16W
R17	1-218-990-81	SHORT CHIP	0		
R18	1-218-941-81	RES-CHIP	100	5%	1/16W
R19	1-218-935-11	RES-CHIP	33	5%	1/16W
R20	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
R21	1-218-941-81	RES-CHIP	100	5%	1/16W
R22	1-218-977-11	RES-CHIP	100K	5%	1/16W
R23	1-218-977-11	RES-CHIP	100K	5%	1/16W
R24	1-218-977-11	RES-CHIP	100K	5%	1/16W
R25	1-218-977-11	RES-CHIP	100K	5%	1/16W
R26	1-218-977-11	RES-CHIP	100K	5%	1/16W
R27	1-218-977-11	RES-CHIP	100K	5%	1/16W
R28	1-218-945-11	RES-CHIP	220	5%	1/16W
R29	1-218-989-11	RES-CHIP	1M	5%	1/16W
R30	1-218-989-11	RES-CHIP	1M	5%	1/16W
R31	1-218-989-11	RES-CHIP	1M	5%	1/16W
R32	1-218-947-11	RES-CHIP	330	5%	1/16W
R33	1-218-990-81	SHORT CHIP	0		
R34	1-216-864-11	SHORT CHIP	0		
R35	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
R36	1-218-947-11	RES-CHIP	330	5%	1/16W
R37	1-218-947-11	RES-CHIP	330	5%	1/16W
R38	1-218-941-81	RES-CHIP	100	5%	1/16W
R39	1-218-941-81	RES-CHIP	100	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-941-81	RES-CHIP	100	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R43	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R44	1-218-977-11	RES-CHIP	100K	5%	1/16W
R52	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R53	1-218-979-11	RES-CHIP	150K	5%	1/16W
R54	1-218-990-81	SHORT CHIP	0		
R55	1-218-973-11	RES-CHIP	47K	5%	1/16W
R57	1-218-967-11	RES-CHIP	15K	5%	1/16W
R58	1-218-969-11	RES-CHIP	22K	5%	1/16W
R60	1-218-941-81	RES-CHIP	100	5%	1/16W
R61	1-218-941-81	RES-CHIP	100	5%	1/16W
R62	1-218-941-81	RES-CHIP	100	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-977-11	RES-CHIP	100K	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-965-11	RES-CHIP	10K	5%	1/16W
R71	1-218-973-11	RES-CHIP	47K	5%	1/16W
R72	1-218-973-11	RES-CHIP	47K	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R75	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-973-11	RES-CHIP	47K	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R79	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-941-81	RES-CHIP	100	5%	1/16W
R82	1-218-941-81	RES-CHIP	100	5%	1/16W
R83	1-218-977-11	RES-CHIP	100K	5%	1/16W
R84	1-218-941-81	RES-CHIP	100	5%	1/16W
R85	1-218-977-11	RES-CHIP	100K	5%	1/16W
R86	1-218-941-81	RES-CHIP	100	5%	1/16W
R87	1-218-977-11	RES-CHIP	100K	5%	1/16W
R96	1-218-941-81	RES-CHIP	100	5%	1/16W
R97	1-220-200-81	RES-CHIP	30K	5%	1/16W
R98	1-218-971-11	RES-CHIP	33K	5%	1/16W
R132	1-218-969-11	RES-CHIP	22K	5%	1/16W
R133	1-218-953-11	RES-CHIP	1K	5%	1/16W
R141	1-216-864-11	SHORT CHIP	0		
R144	1-216-864-11	SHORT CHIP	0		
R147	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-813-678-11	OSCILLATOR, CERAMIC (CHIP TYPE) (12MHz)			
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)			

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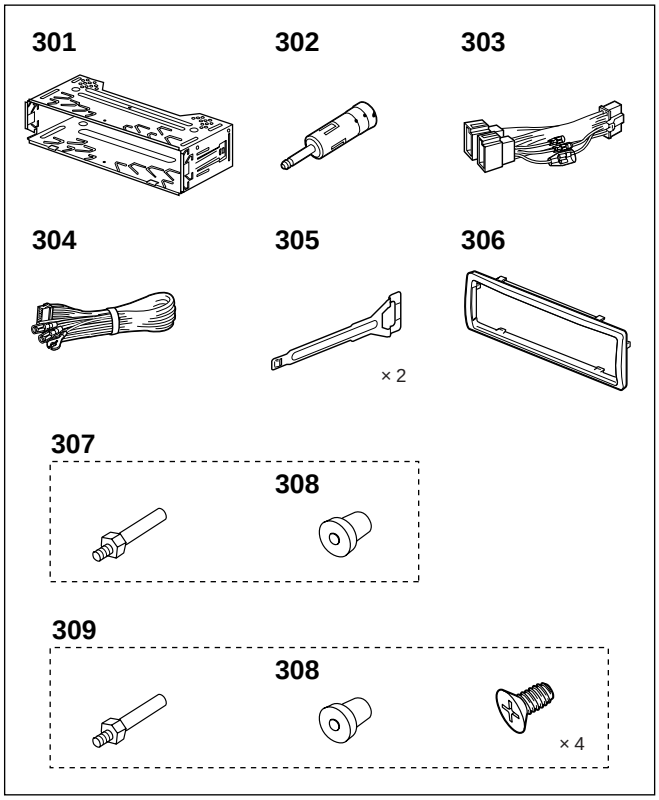
Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
5	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	(EXCEPT AEP,UK)
5	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
M903	A-1166-300-A	MOTOR ASSY, LE (LOADING)	
SW4	1-571-099-32	SWITCH (1 KEY) (LIMIT)	
**********			
		ACCESSORIES	
		**********	
	2-661-101-11	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH)	(AEP,UK)
	2-661-101-21	MANUAL, INSTRUCTION (ENGLISH,SPANISH, SIMPLIFIED CHINESE)	(E,MX,CH)
	2-661-101-31	MANUAL, INSTRUCTION (ENGLISH,ARABIC)	(EA)
	2-661-102-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH)	(AEP,UK)
	2-661-102-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,SIMPLIFIED CHINESE)	(E,MX,CH)
	2-661-102-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, ARABIC)	(E,MX,CH)
**********			

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	1-465-459-31	ADAPTOR, ANTENNA (AEP,UK)	
303	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)
304	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	(EXCEPT AEP,UK)
305	3-246-471-01	KEY (FRAME)	
306	2-633-239-01	COLLAR	
307	X-3382-926-1	SCREW ASSY (BS), FITTING (AEP,UK)	
308	3-349-410-11	BUSHING	
309	X-3381-154-1	SCREW ASSY (BS4), FITTING (EXCEPT AEP,UK)